1983

STATISTICS AND INFORMATION DEPARTMENT
MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES
GOVERNMENT OF JAPAN

FISHERIES STATISTICS OF JAPAN

1983

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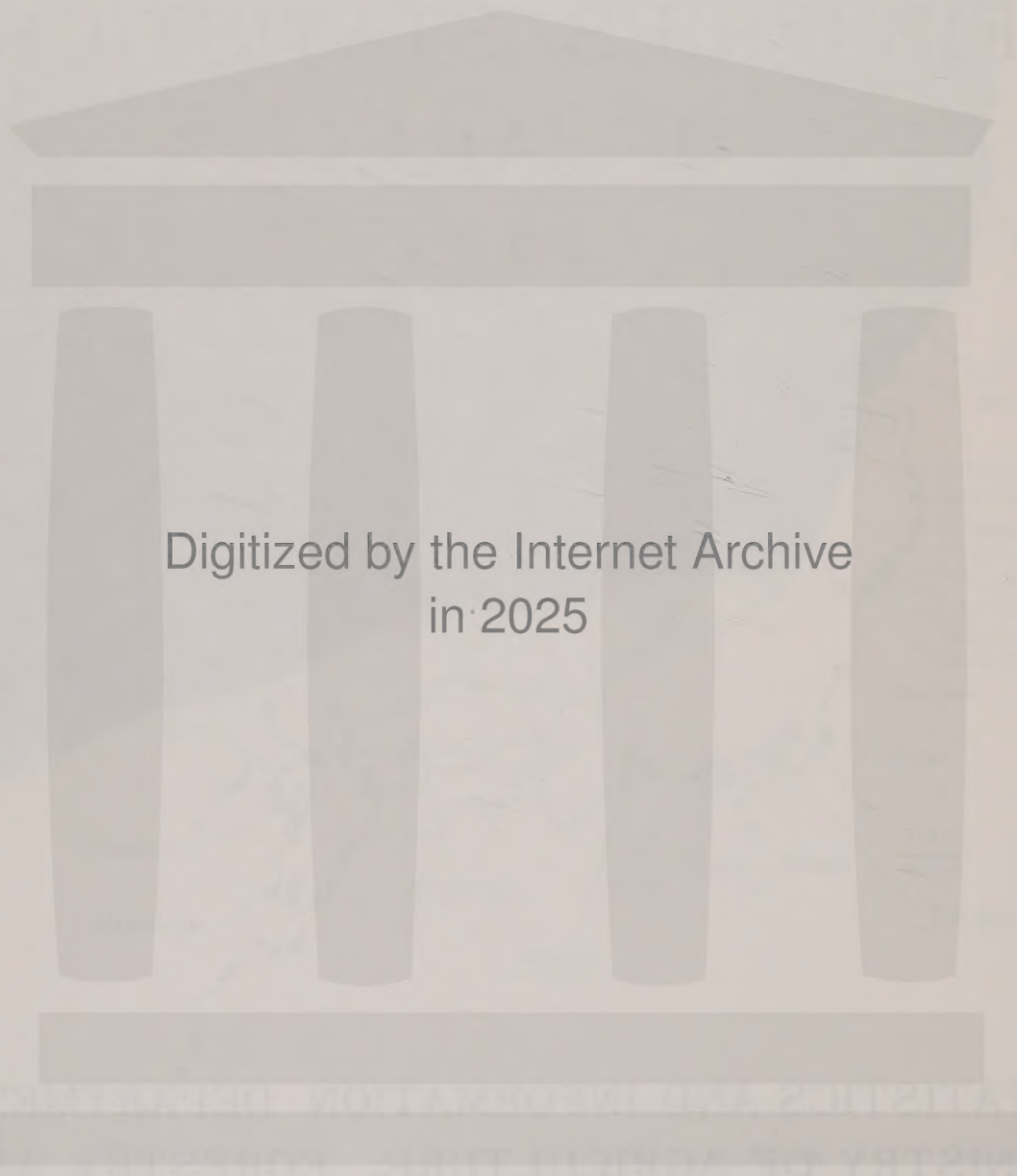
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FOREWORD

The bulletin "Fisheries Statistics of Japan" contains result of major statistical surveys on fishery structure, production, marketing and economy which are conducted by the government of Japan (Statistics and Information Department, The Ministry of Agriculture, Forestry and Fisheries), and it has been published yearly since 1963.

Recently, Japanese fisheries lie under very severe circumstances; The restrictions of fishing operation caused by establishment of the "200 sea mile fishing zone" and the increased cost of fishing operation resulted from the high price of fuel oil.

In order to keep stable supply of fishery products as important protein resources in nation's nutrition under such circumstances, our government promotes cultivation and effective utilization of fishery resources in the water around Japan and makes an effort to keep overseas fishing ground through diplomacy and international cooperation in the field of fisheries.

Lastly we hope this bulletin will benefit our readers to understand the current situation of Japanese fishery and also contribute to development of international Fisheries.

March, 1985

Toshio Otsubo

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Director,
Statistics and Information Department
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Government of Japan

CONTENTS

EXPLANATORY NOTES

STATISTICAL CHART Page

I FISHERY PRODUCTION

1 Annual Trend of Total Catch, 1950-1983 2

2 Total Catch by Type of Fisheries, 1970-1983 2

3 Catch by Type of Fishery, 1983 3

4 Catch by Major Fish, 1983 3

5 Catch by Major Fish, 1970-1983 4

6 Yield of Marine Cultures, 1970-1983 4

7 Catch of Major Inland Water Fish, 1970-1983 5

8 Yield of Major Inland Water Culture Fish, 1970-1983 ... 5

9 Catch of the World by Countries, 1970-1983 5

II STRUCTURE OF FISHERY PRODUCTION

1 Number of Marine Fishery Establishments, 1983 6

2 Number of Marine Fishery Workers, 1983 6

3 Number of Fishing Boats, 1970-1983 7

4 Number of Fishing Boats, 1983 7

III MARKETING OF FISHERY PRODUCTS

1 Supply of Fishery Products, 1970-1983 8

2 Price Index of Fishery Products, 1978-1983 8

3 Fishery Processing Products, 1970-1983 9

4 Volume Transacted by Group of Commodity in Six Large Central Wholesale Markets, 1970-1983 10

5 Exports and Imports of Fishery Products, 1970-1983 10

6 Imports of Fishery Products, 1983 11

7 Exports of Fishery Products, 1983 11

IV ECONOMY OF FISHERY ESTABLISHMENTS

1 Economy of Fishery Household, 1970-1983 12

2 Economy of Middle and Small Size Fishery Enterprise, 1970-1983 12

STATISTICAL TABLE

Page

I FISHERY PRODUCTION

1 Summary of Catch by Fishery Sector, 1961-1983 14

2 Summary of Catch by Species Group, 1961-1983 15

3 Catch in Quantity by Species, 1979-1983 16

4 Catch in Value by Species, 1979-1983 18

5 Catch in Quantity and Value by Fishery Type, 1979-1983 20

6 Catch of Major Species by Fishery Type, 1979-1983 22

7 Index of Fishery Production by Type of Fisheries, 1979-1983 26

8 Index of Fishery Production by Species, 1979-1983 27

II STRUCTURE OF FISHERY PRODUCTION

1 Number of Marine Fishery Establishments, 1979-1983 28

2 Number of Marine Fishery Workers, 1979-1983 28

3 Number of Fishing Boats, 1979-1983 29

4 Gross Tonnages of Fishing Boats, 1979-1983 29

III MARKETING OF FISHERY PRODUCT

1 Quantity and Price of Landings by Commodity at Fish Markets in Producing Areas, 1983 30

2 Quantity and Price of Arrivals by Commodity at Tokyo Central Wholesale Markets, 1983 32

3 Prices of Major Fishery Products by Steps of Distribution in Tokyo, 1983 33

4 Processed Fishery Products, 1979-1983 34

5 Value of Imports and Exports by Commodity, 1971-1983 .. 36

6 Value of Imports and Exports by Country, 1971-1983 38

7 Value of Imports and Exports of Fishery Products, 1983 40

8 Food Balance Sheet on Fishery Products, 1979-1983 42

9 Average Consumption in Quantity of Fishery Products per Household, 1979-1983 44

10 Average Consumption in Value of Fishery Products per Household, 1979-1983 46

IV ECONOMY OF FISHERY ESTABLISHMENTS Page

1 National Average of Fisheries Household Economy, 1979-1983 48

2 National Average of Small and Middle Size Fishery Enterprise Economy, 1979-1983 49

REFERENCE TABLES

1 Catch by Country of the World, 1978-1982 52

2 Catch by Species of the World, 1978-1982 53

APPENDIX

Illastration for Types of Fisheries 56

EXPLANATORY NOTES

1 Sources of statistics

Table No. I-1 ∿ 8, II-1,2	Statistics and Information Department
III-1 ∿ 4	Ministry of Agriculture, Forestry and
IV-1, 2	Fisheries
Table No. II-3, 4	Fisheries Agency Ministry of Agriculture, Forestry and Fisheries
Table No. III-5 ∿ 7	Bureau of Customs, Ministry of Finance
Reference Table 1, 2	F. A. O.

2 Period of inquisition

As a principle, the statistics in this bulletin are inquired by the calendar year but the figures of the whaling in the Antarctic Ocean are given for the "Whaling year".

3 Symbols

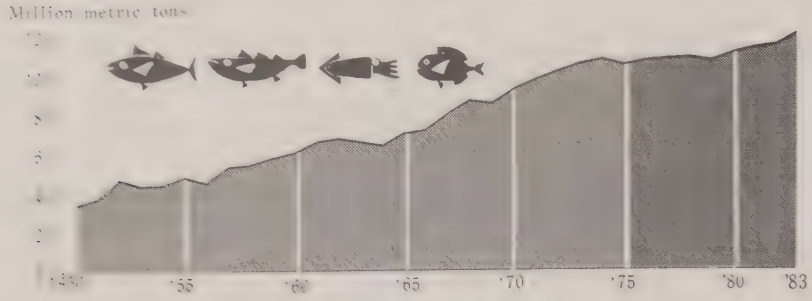
The following symbols are used in this publication:

[0] means "Less than the unit amount"
[---] means "Unknown or not available"
[-] means "No record"
[Δ] means "Minus"

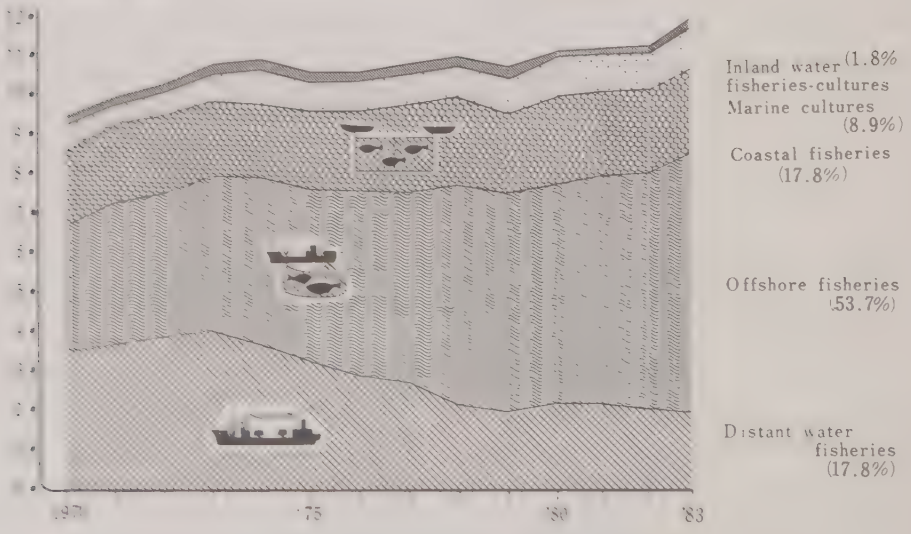
STATISTICAL CHARTS

I FISHERY PRODUCTION

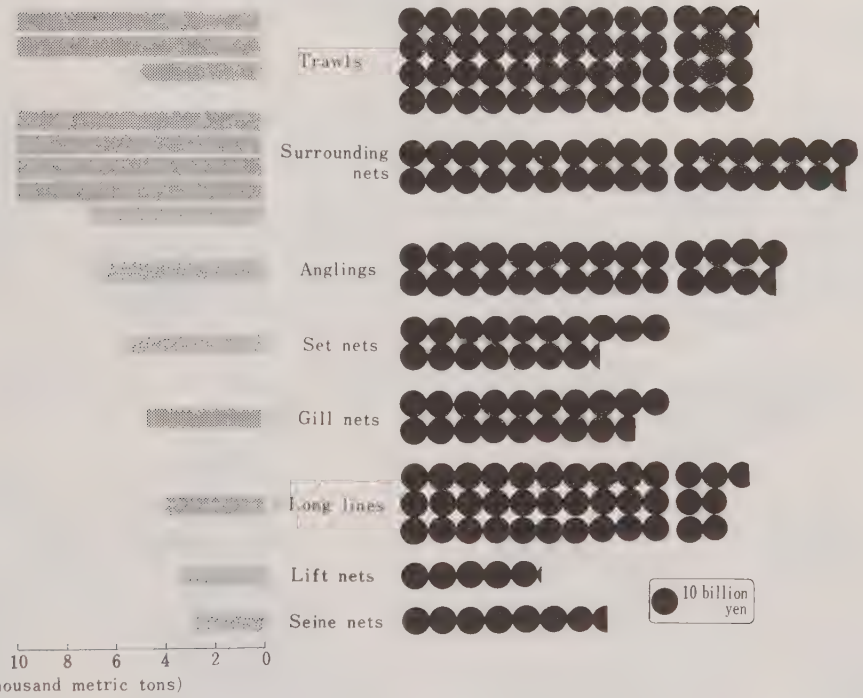
1 Annual Trend of Total Catch, 1950～1983



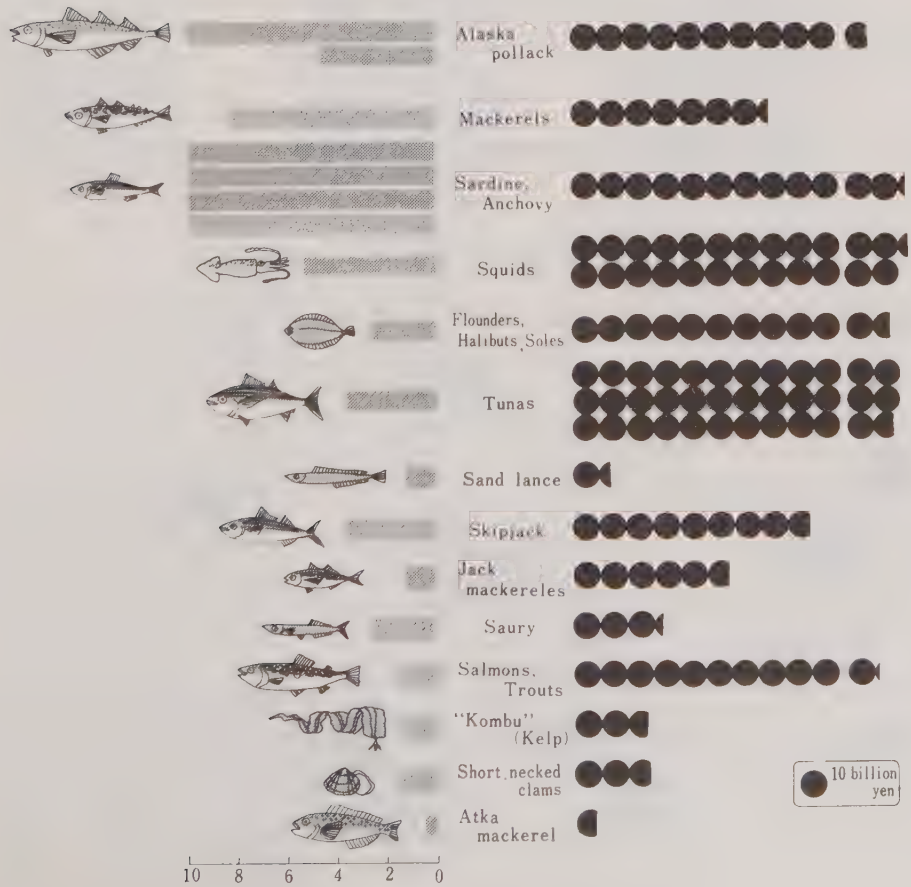
2 Total Catch by Type of Fisheries, 1970～1983



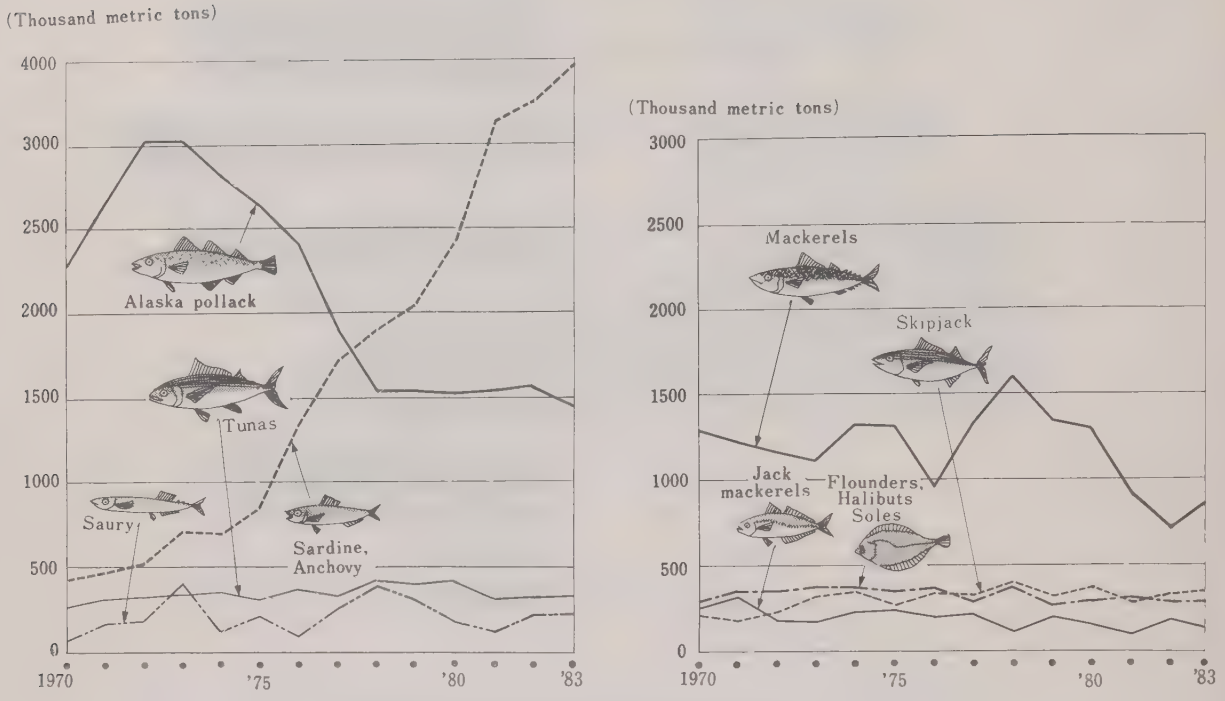
3 Catch by Type of Fishery, 1983



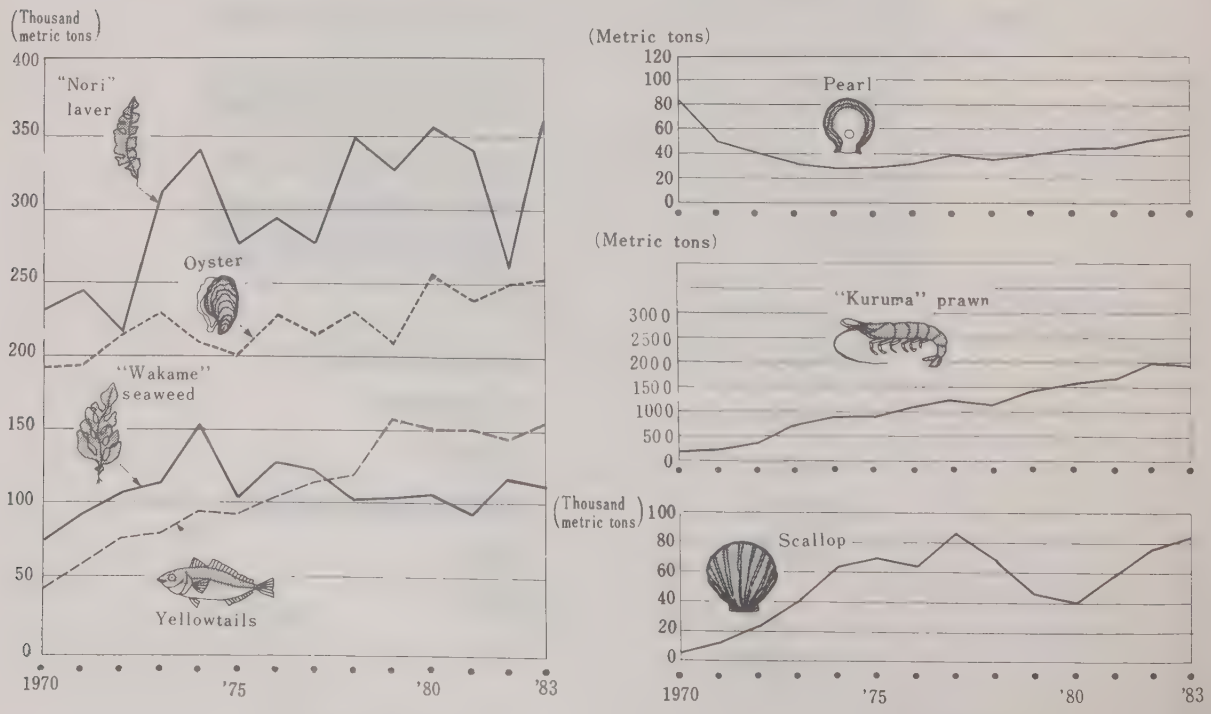
4 Catch by Major Fish, 1983



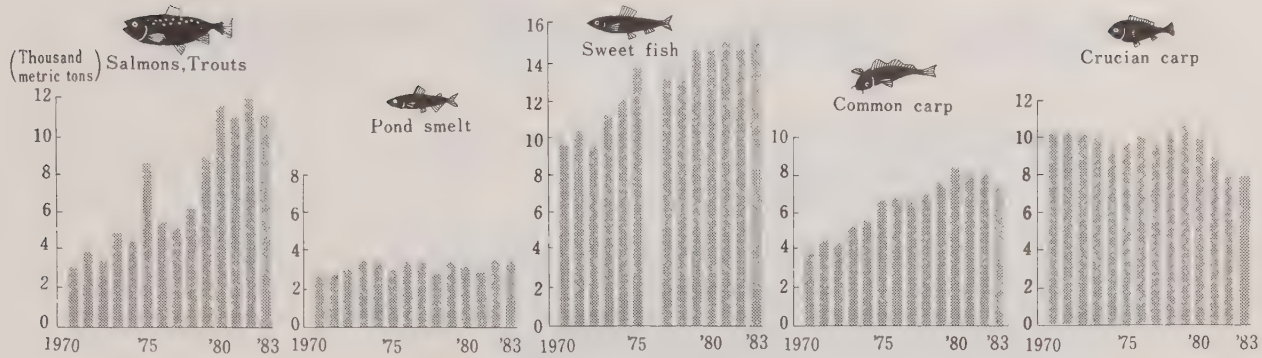
5 Catch by Major Fish, 1970～1983



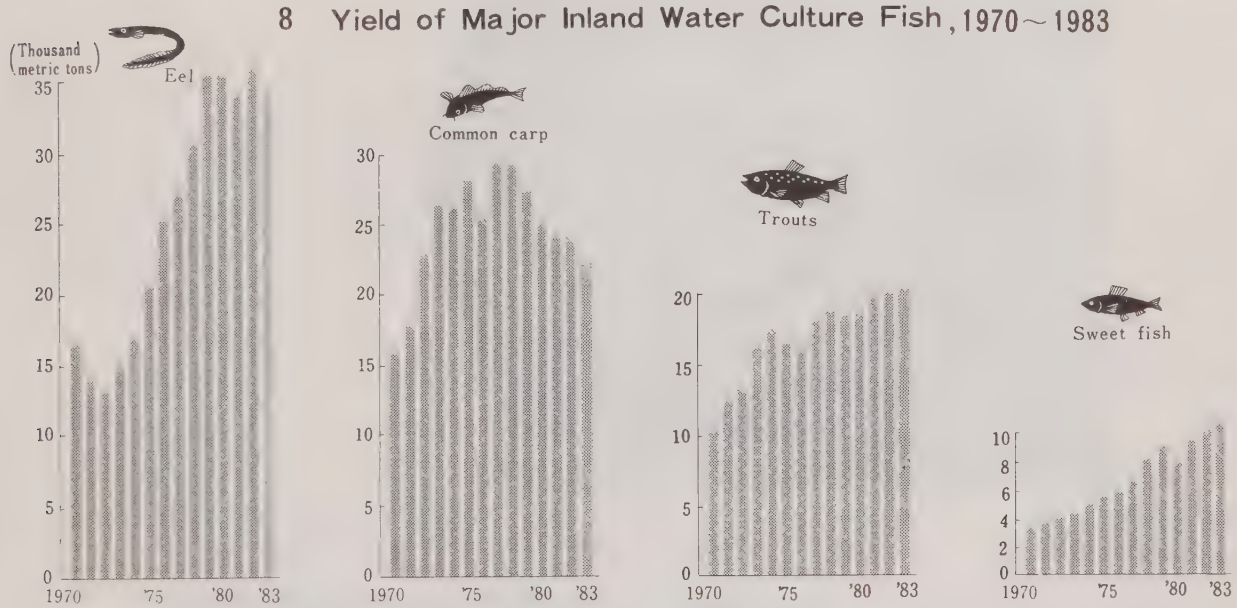
6 Yield of Marine Cultures, 1970～1983



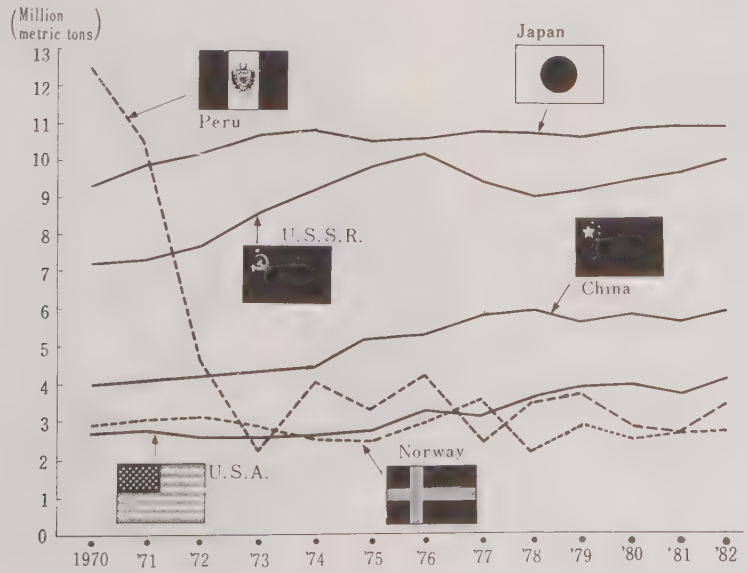
7 Catch of Major Inland Water Fish, 1970～1983



8 Yield of Major Inland Water Culture Fish, 1970～1983

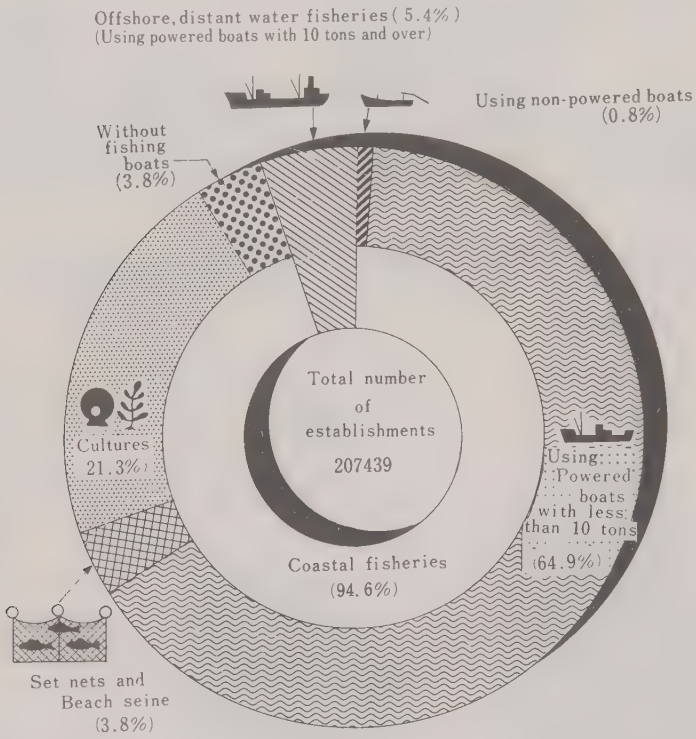


9 Catch of the World by Countries, 1970～1982

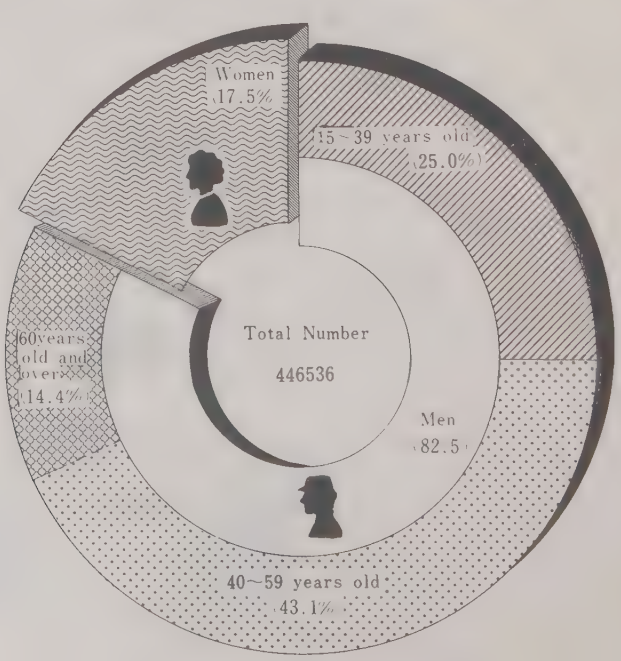


II STRUCTURE OF FISHERY PRODUCTION

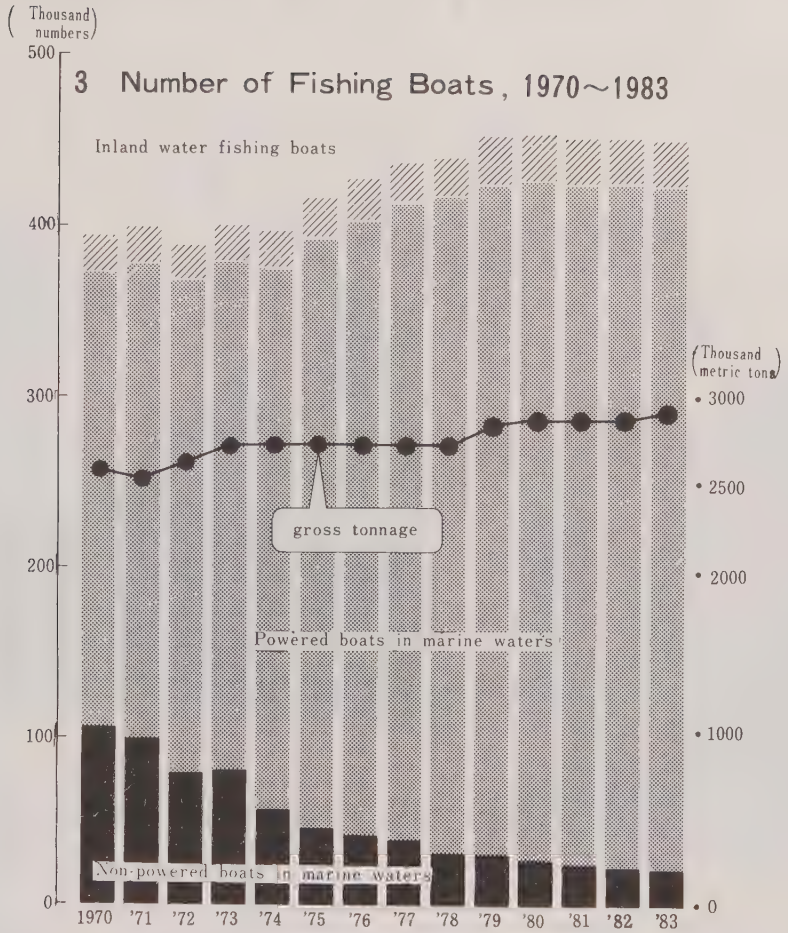
1 Number of Marine Fishery Establishments, 1983



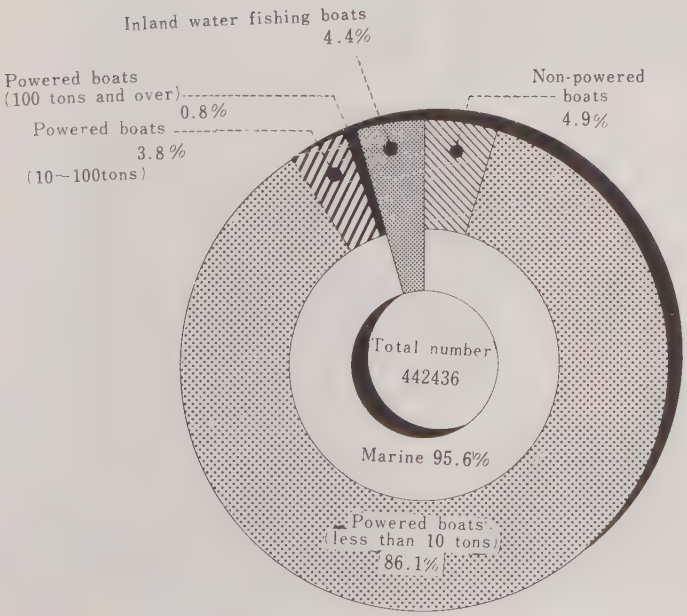
2 Number of Marine Fishery Workers, 1983



3 Number of Fishing Boats, 1970～1983

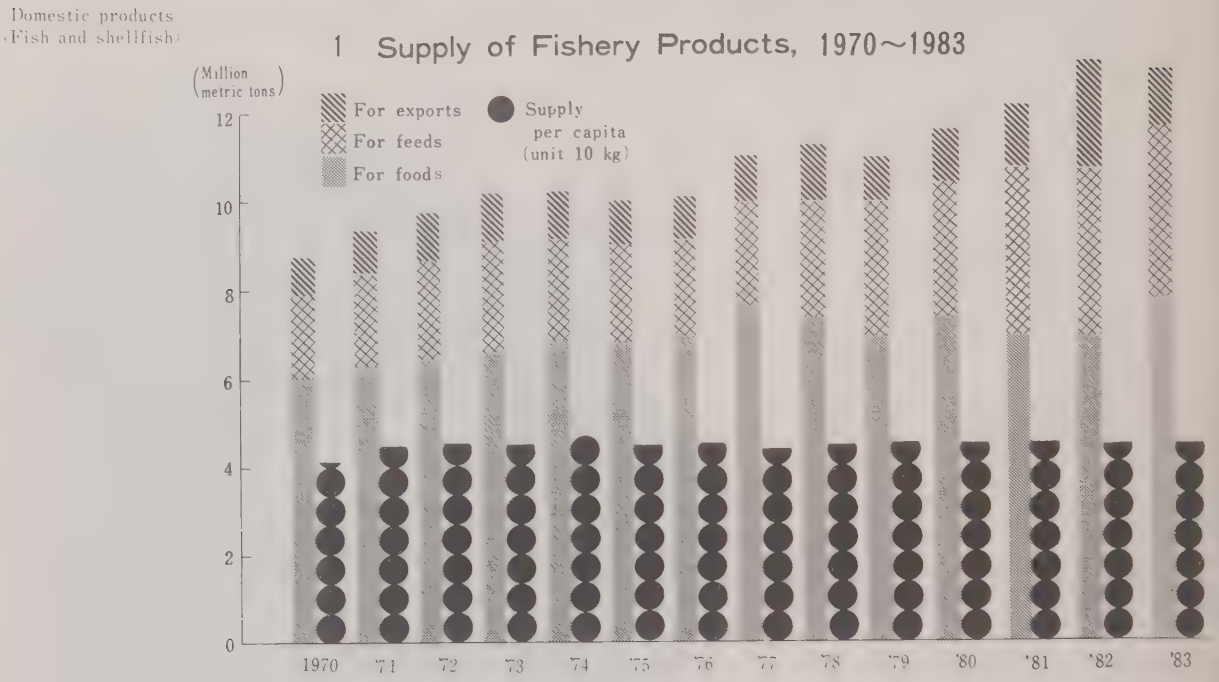


4 Number of Fishing Boats, 1983

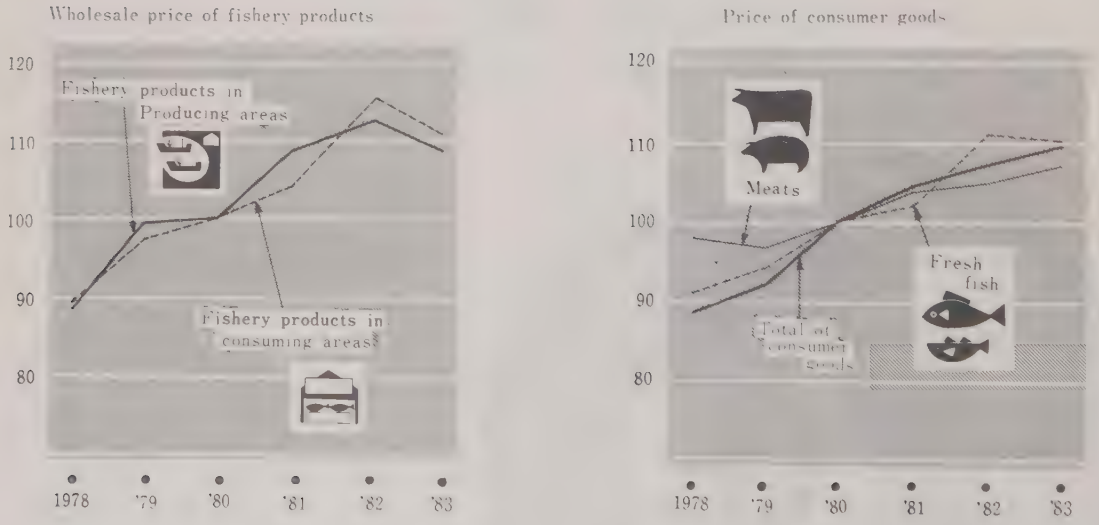


III MARKETING OF FISHERY PRODUCTS

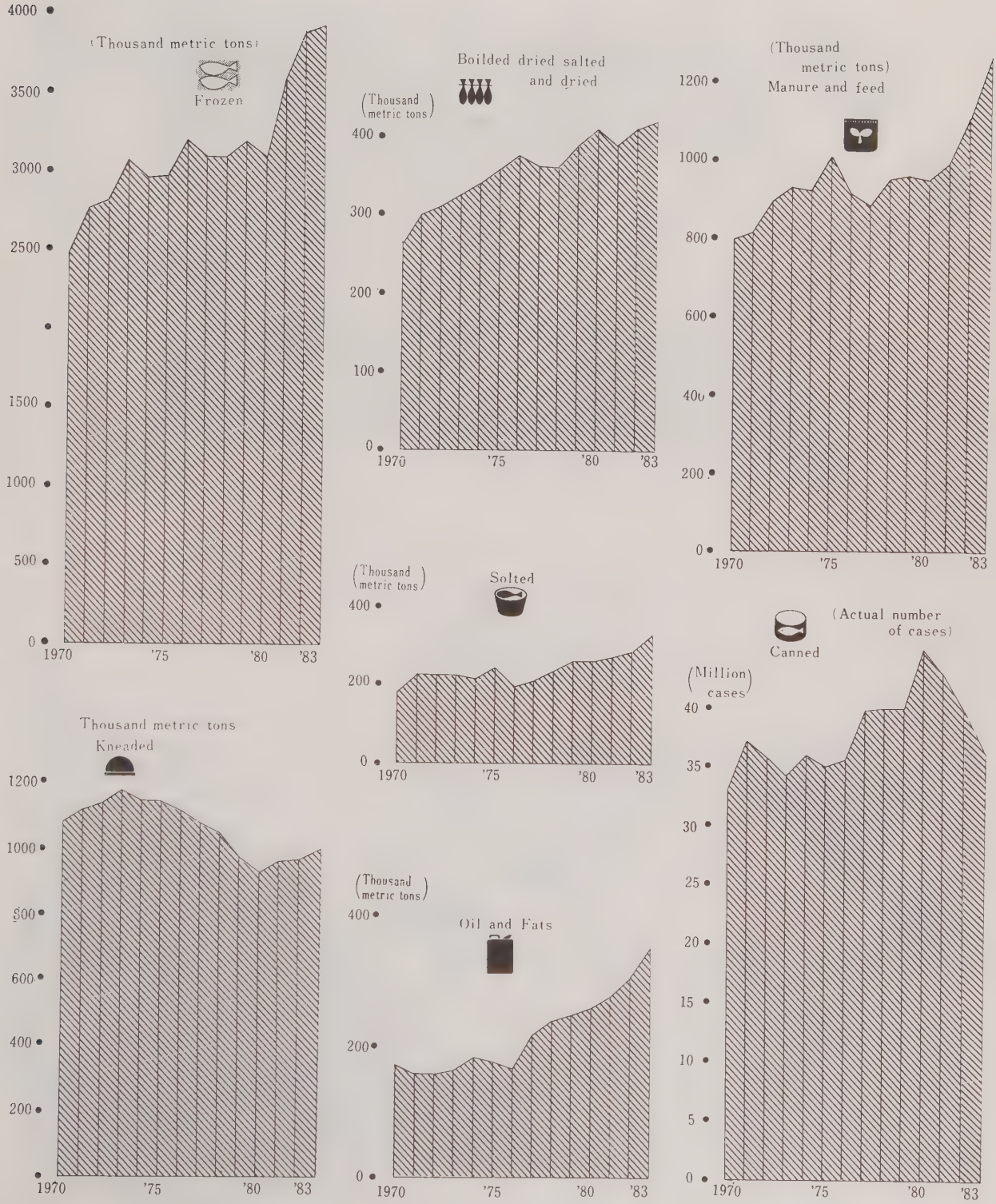
1 Supply of Fishery Products, 1970～1983



2 Price Index of Fishery Products (1980=100) 1978～1983

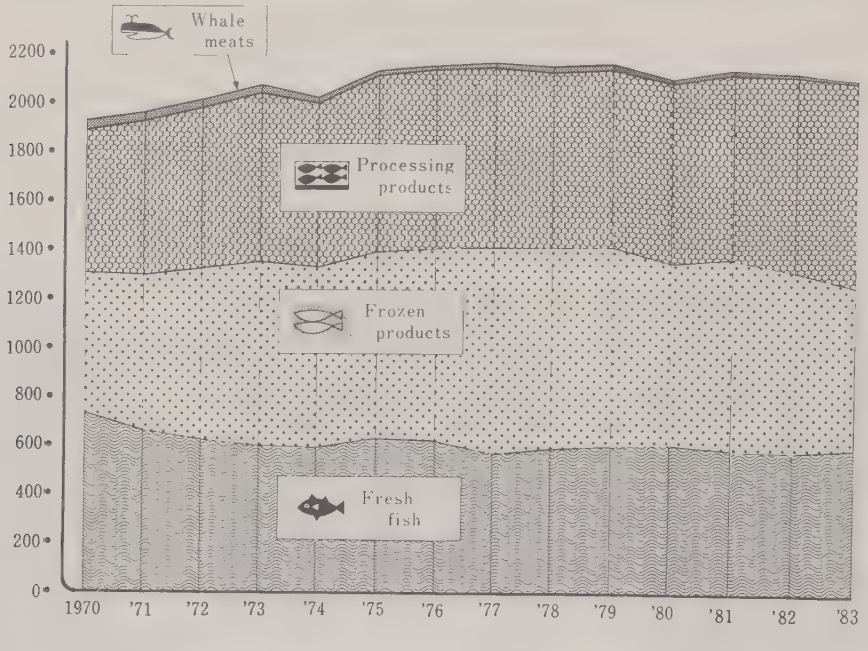


3 Fishery Processing Products, 1970～1983



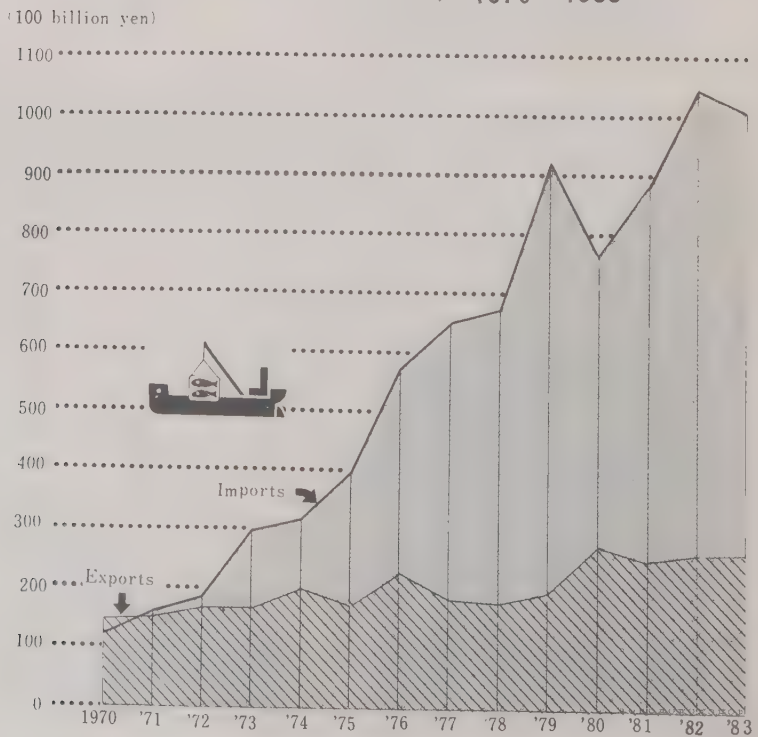
4 Volume Transacted by Group of Commodity in Six Large Central Wholesale Markets, 1970～1983

(thousand metric tons)

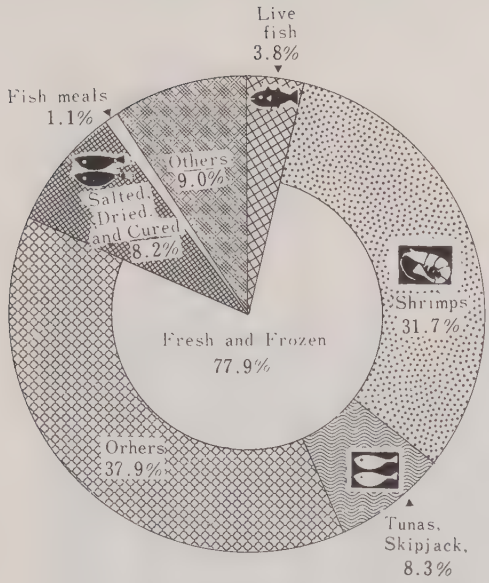


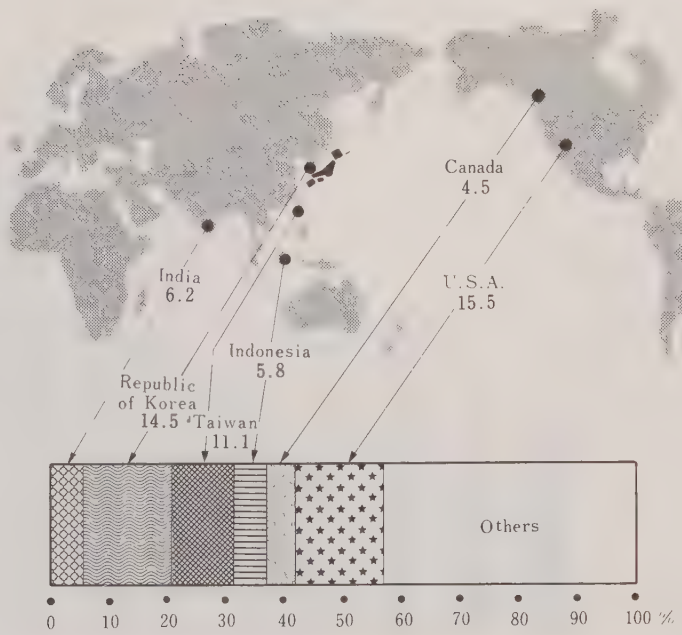
5 Exports and Imports of Fishery Products, 1970～1983

(100 billion yen)

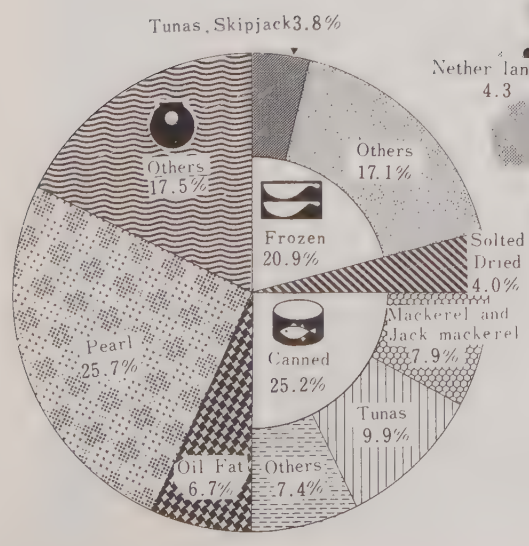


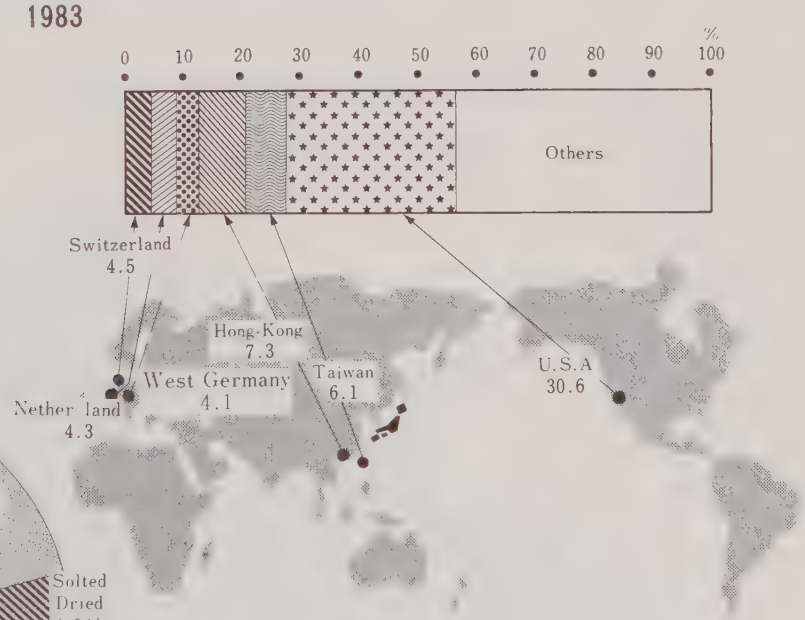
6 Imports of Fishery Products, 1983 (in value)





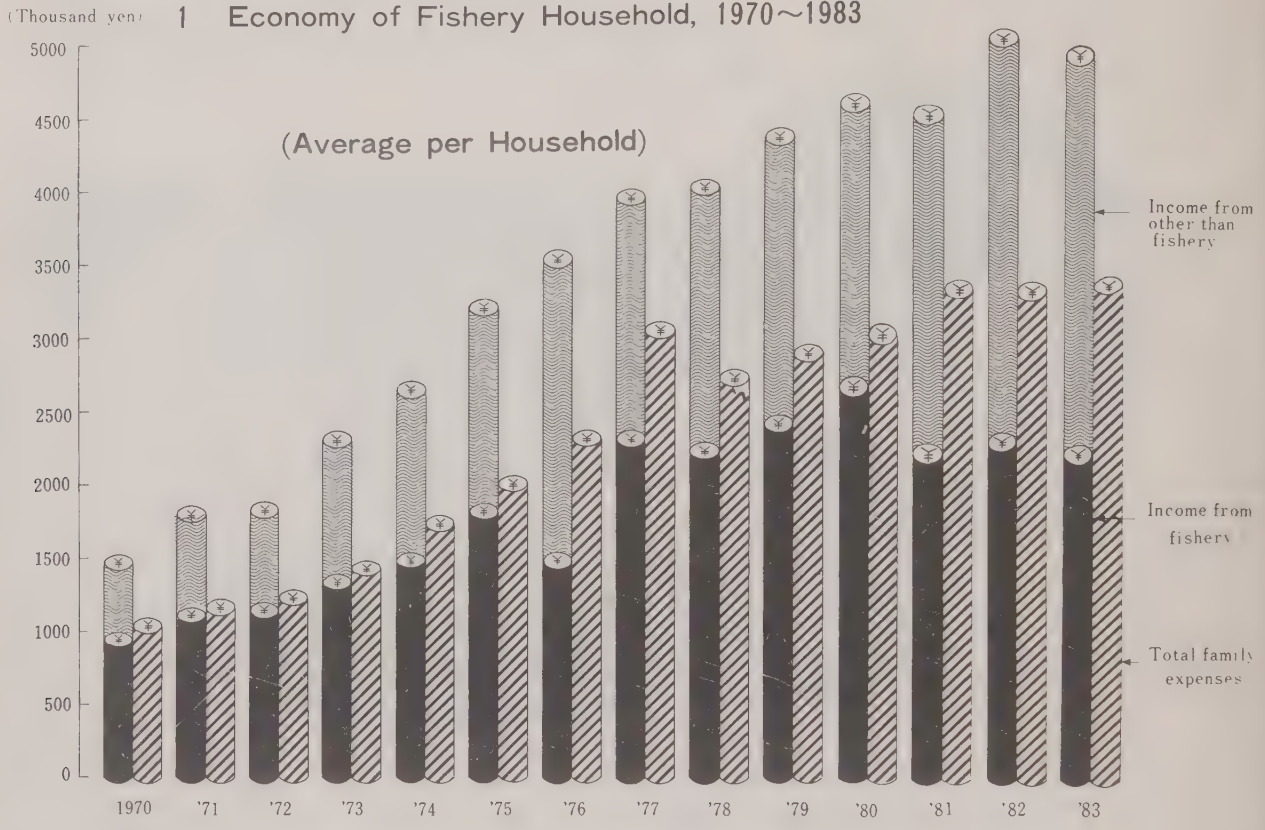
7 Exports of Fishery Products, (in value) 1983



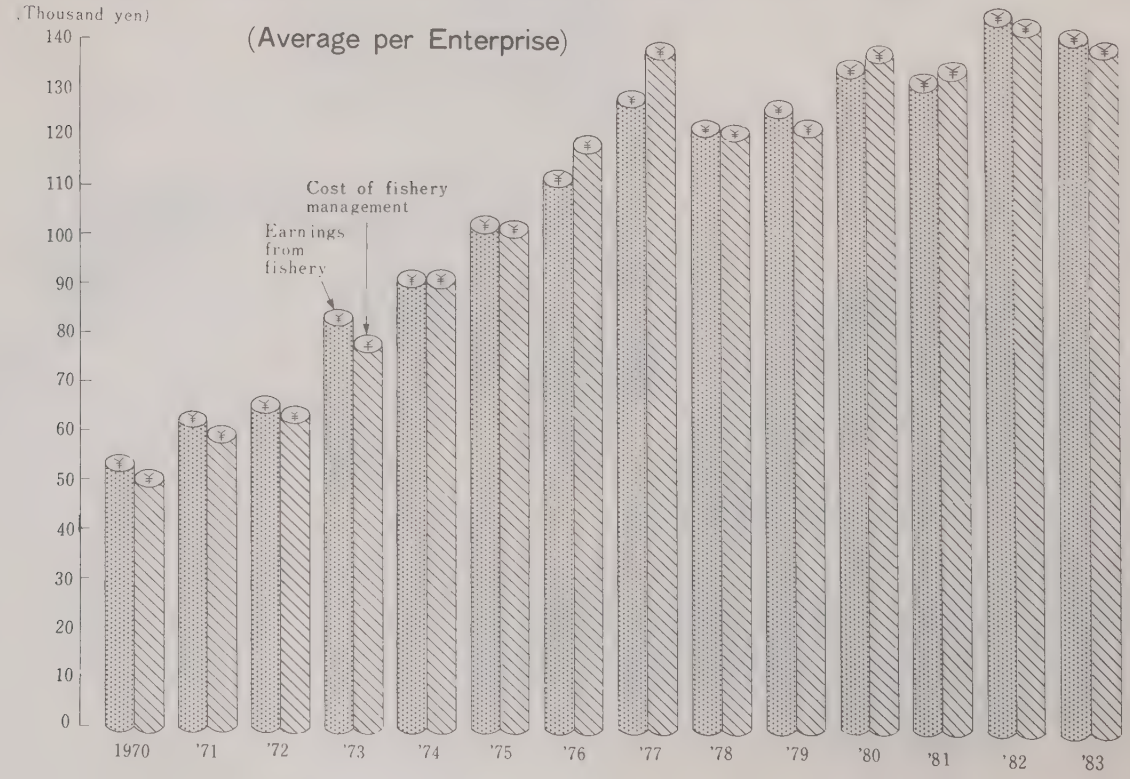


Ⅳ ECONOMY OF FISHERY ESTABLISHMENTS

1 Economy of Fishery Household, 1970～1983



2 Economy of Middle and Small Size Fishery Enterprise, 1970～1983



STATISTICAL TABLES

I FISHERY PRODUCTION

I — 1 SUMMARY OF CATCH BY FISHERY SECTOR, 1961～1983

Unit { Quantity: Thousand metric tons
Value : Hundred million yens

Year	Total		Marine Fisheries		Marine Cultures		Inland Water Fisheries		Inland Water Cultures		Whalings	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Numbers	Value
1961	6,710	3,952	6,287	3,340	322	455	81	93	18	64	20,848	267
1962	6,864	4,266	6,397	3,567	362	538	84	94	20	68	22,240	269
1963	6,698	4,830	6,200	3,988	389	650	84	98	23	94	22,373	309
1964	6,350	4,976	5,868	4,039	362	724	89	102	29	111	24,410	323
1965	6,908	5,558	6,382	4,516	380	816	113	101	33	126	26,986	376
1966	7,103	6,260	6,558	5,005	405	974	103	118	36	164	22,784	290
1967	7,851	7,026	7,241	5,677	470	1,074	97	109	42	166	21,088	252
1968	8,670	7,448	7,993	6,097	522	1,010	103	119	52	221	21,586	237
1969	8,613	8,488	7,976	6,928	473	1,130	112	144	52	285	17,409	221
1970	9,315	9,692	8,598	7,852	549	1,353	119	170	48	317	16,887	272
1971	9,909	10,894	9,149	8,957	609	1,374	101	214	50	349	16,419	314
1972	10,213	11,796	9,400	9,417	648	1,708	109	231	56	441	17,590	278
1973	10,763	14,641	9,793	11,564	791	2,252	114	299	64	528	14,012	273
1974	10,808	17,084	9,749	13,789	880	2,325	112	348	67	622	14,277	327
1975	10,545	18,870	9,573	15,204	773	2,536	127	417	72	713	13,427	337
1976	10,656	21,862	9,605	17,702	850	2,933	124	415	77	811	9,632	216
1977	10,757	25,451	9,688	20,513	861	3,522	126	486	82	930	9,299	206
1978	10,828	24,511	9,683	18,914	917	4,013	138	508	90	1,076	5,924	124
1979	10,587	26,480	9,477	20,559	879	4,229	136	527	95	1,164	4,918	107
1980	11,122	27,712	9,909	21,336	992	4,687	128	578	94	1,110	5,191	126
1981	11,319	27,779	10,143	21,525	960	4,565	124	625	92	1,064	4,887	111
1982	11,388	29,640	10,231	23,129	938	4,556	122	709	96	1,248	4,967	132
1983	11,967	29,032	10,697	22,053	1 060	5,186	117	624	94	1,170	4,606	132

I — 2 SUMMARY OF CATCH BY SPECIES GROUP, 1961～1983

Unit: Thousand metric tons

Year	Total	Marine Waters					Inland Waters				
		Fishes	Molluscs	Crus-taceans	Aquatic plants	Others	Fishes	Molluscs	Crus-taceans	Aquatic plants	Others
1961	6,710	5,015	985	138	425	49	66	28	2	1	3
1962	6,864	4,911	1,158	149	501	41	69	30	2	1	3
1963	6,698	4,653	1,303	159	425	51	72	33	1	1	2
1964	6,350	4,745	925	153	361	48	80	35	1	0	2
1965	6,908	5,093	1,082	132	406	52	86	56	1	0	2
1966	7,103	5,232	1,097	142	436	57	86	50	1	0	2
1967	7,851	5,742	1,225	149	534	60	92	42	2	0	2
1968	8,670	6,340	1,430	186	503	57	104	44	2	1	4
1969	8,613	6,561	1,238	153	444	53	107	51	3	1	3
1970	9,315	7,289	1,132	146	521	59	103	58	3	1	3
1971	9,909	7,913	1,065	126	587	66	107	36	5	1	2
1972	10,213	8,075	1,217	137	559	59	110	46	5	1	2
1973	10,763	8,645	1,130	141	653	64	124	45	6	1	2
1974	10,808	8,543	1,129	170	601	85	126	44	6	1	3
1975	10,545	8,341	1,156	147	627	75	141	48	7	1	3
1976	10,656	8,378	1,196	129	665	87	142	48	5	1	5
1977	10,757	8,461	1,223	126	638	101	150	49	6	0	3
1978	10,828	8,433	1,232	141	638	155	161	52	9	0	6
1979	10,587	8,277	1,187	134	639	117	168	49	8	0	6
1980	11,122	8,582	1,372	130	695	120	165	43	6	1	8
1981	11,319	8,973	1,226	132	648	124	150	41	6	0	9
1982	11,388	8,996	1,280	151	630	112	170	39	6	1	3
1983	11,967	9,430	1,308	166	710	142	164	37	5	1	4

I — 3 CATCH IN QUANTITY

	1979	1980	1981	1982	1983
Total 1)	10,590,423	11,121,846	11,318,652	11,388,138	11,967,382
Marine Fisheries	9,476,793	9,908,554	10,142,996	10,231,114	10,696,562
Fishes	8,106,566	8,412,014	8,798,344	8,821,127	9,239,408
Tunas, albacore	362,917	378,496	360,278	372,143	356,944
Marlins, swordfishes	43,357	44,120	47,455	44,479	48,024
Skipjack, frigate mackerel	346,518	376,739	305,491	320,106	369,367
Sharks, rays	51,976	54,170	46,378	44,974	43,616
Salmons, trouts	131,021	122,515	149,845	136,309	161,036
Herring	6,819	11,154	8,901	24,197	8,357
Sardine, round herring	1,866,495	2,236,160	3,125,377	3,324,749	3,780,744
Anchovy	134,577	150,606	160,467	197,453	207,601
Jack mackerel, scads	183,883	144,977	122,231	174,213	174,200
Mackerels	1,414,183	1,301,121	908,015	717,840	804,849
Saury	277,960	187,155	160 319	206,958	239,658
Yellowtails	44,970	42,009	37,774	38,443	41,822
Flounders, halibuts, soles	288,896	288,881	296,572	274,856	257,424
Cod	91,829	96,742	102,205	95,127	104,132
Alaska pollack	1,551,116	1,552,421	1,595,302	1,567,481	1,434,428
Atka mackerel	118,888	117,351	122,839	102,884	55,531
Rockfishes	50,374	43,180	38,479	29,213	22,597
Croakers	39,444	32,025	33,358	30,210	26,507
Hairtail	30,518	37,803	35,097	35,948	34,851
Sea breams	28,825	28,151	26,567	27,435	27,314
Spanish mackerel	6,140	7,045	6,181	5,744	6,142
Sand lance	110,484	201,226	162,448	126,658	120,163
Others	925,376	975,967	946,765	923,707	914,101
Crustaceans	132,930	128,064	130,275	149,406	164,479
Spiny lobster	1,064	1,065	1,061	1,153	1,179
"Kuruma" prawn	2,468	2,807	2,864	3,068	3,578
Other prawns, shrimps	49,129	47,133	50,123	54,843	58,816
King crab	270	56	26	142	152
Queen crab	23,476	21,314	12,484	9,786	8,366
Other crabs	56,523	56,189	63,717	80,414	92,388
Molluscs	938,307	1,070,601	923,864	944,941	959,751
Common squid	212,841	331,225	196,830	181,721	192,060
Other squids, cuttlefishes	315,990	355,386	319,670	368,717	346,535
Octopuses	51,986	46,105	52,236	43,206	41,648
Abalones	4,853	4,878	4,706	4,607	4,578
Short necked clams	132,641	127,386	137,114	139,380	160,424
Common scallop	79,734	83,134	91,139	99,505	128,136
"Mogai" clam	7,206	1,677	2,804	3,624	4,640
Other clams, molluscs	133,056	120,810	119,365	104,181	81,730

BY SPECIES, 1979~1983

Unit: Metric tons

Species	1979	1980	1981	1982	1983
Echinodermata, etc.	111,434	113,907	122,521	110,423	140,830
Sea urchins	26,500	24,158	23,984	25,975	25,254
Sea cucumbers	9,381	8,970	8,098	8,437	8,295
Other marine animals	75,553	80,779	90,439	76,011	107,281
Marine mamals	1,062	1,283	1,472	1,495	2,126
Seaweeds	186,494	182,685	166,515	203,721	189,968
Kelps	131,546	124,816	112,178	145,952	129,043
"Wakame" seaweed	12,131	15,759	13,993	12,155	9,565
Agar-agar	11,177	9,861	8,988	9,088	9,728
Others	31,641	32,249	31,356	36,526	41,632
Marine Cultures	822,620	991,843	959,682	938,403	1,059,782
Yellowtails	154,872	149,311	150,754	146,304	155,879
Pearl	40	42	45	52	58
Oyster	205,509	261,323	235,241	250,288	253,247
Common scallop	43,614	40,399	59,095	76,866	85,111
"Nori" seaweed	325,686	357,672	340,510	263,312	360,694
"Wakame" seaweed	103,791	113,532	91,272	118,340	112,835
Others	49,108	69,564	82,763	83,241	91,958
Inland Water Fisheries	136,441	127,627	124,000	122,226	116,943
Salmons, trouts	8,652	11,527	11,092	11,613	11,260
Sweet fish	14,822	14,723	15,406	14,872	15,579
Common carp, crucian carp	18,804	18,545	17,246	16,649	15,550
Eel	1,923	1,936	1,920	1,927	1,818
Fresh water clams	51,075	43,093	40,589	39,113	36,702
Others	41,165	37,803	37,747	38,052	36,034
Inland Water Cultures	94,569	93,719	91,976	96,395	94,095
Trouts	18,464	19,972	20,234	20,689	20,713
Sweet fish	8,455	7,989	9,492	10,222	10,318
Common carp, crucian carp	28,715	26,196	25,073	25,308	23,989
Eel	36,781	36,618	33,984	36,642	34,489
Others	2,154	2,939	3,193	3,534	4,586
Whaling 2)	4,918	5,191	4,887	4,967	4,606
Blue whale	-	-	-	-	-
Fin whale	-	-	-	-	-
Humpback whale	-	-	-	-	-
Sei whale	227	307	485	482	536
Sperm whale	1,520	1,192	869	439	393
Mink whale	3,140	3,658	3,494	3,901	3,514
Bottlenose whale	-	31	39	60	37
Pilot whale	-	1	-	85	125
Others	31	2	-	-	-

Notes : 1) Excluding whales.

2) Actual number of catch.

I — 4 CATCH IN VALUE

Species	1979	1980	1981	1982	1983
Total	2,658,652	2,783,778	2,789,066	2,977,211	2,916,391
Marine Fisheries	2,055,936	2,133,627	2,152,458	2,312,861	2,205,292
Fishes	1,499,662	1,549,576	1,602,271	1,689,574	1,606,295
Tunas, albacore	336,479	333,837	329,561	362,772	357,548
Marlins, swordfishes	30,491	31,755	33,439	35,358	34,776
Skipjack, frigate mackerel	85,765	114,614	101,291	95,948	91,457
Sharks, rays	7,351	7,679	7,066	7,712	6,794
Salmons, trouts	116,709	104,367	124,555	127,113	110,718
Herring	2,015	3,158	2,712	2,668	2,498
Sardine, round herring	59,860	73,866	77,181	82,667	102,234
Anchovy	14,204	15,433	13,124	18,345	19,795
Jack mackerel, scads	58,671	54,026	58,559	66,237	67,064
Mackerels	69,784	82,075	94,215	89,872	74,049
Saury	19,542	19,918	28,271	59,064	32,058
Yellowtails	35,097	35,002	34,086	32,333	30,712
Flounders, halibuts, soles	104,368	107,848	112,859	120,634	116,223
Cod	17,657	18,855	19,062	19,185	20,581
Alaska pollack	125,899	124,866	117,114	117,392	108,654
Atka mackerel	6,702	8,555	8,718	10,462	6,704
Rockfishes	18,328	16,729	18,591	17,202	14,241
Croakers	8,347	7,650	7,847	7,223	6,756
Hairtail	8,442	11,849	11,062	10,623	9,670
Sea breams	50,215	49,843	45,388	47,861	47,857
Spanish mackerels	5,556	6,888	6,201	6,115	7,766
Sand lance	7,724	11,660	12,101	12,709	14,194
Others	310,456	309,103	339,268	340,070	323,943
Crustaceans	114,662	117,137	123,306	137,914	138,886
Spiny lobster	5,681	6,207	6,394	6,351	6,708
"Kuruma" prawn	10,650	11,062	12,848	14,907	17,759
Other prawns, shrimps	57,711	58,833	62,877	71,065	65,152
King crab	248	43	19	109	116
Queen crab	18,005	17,592	12,730	11,506	10,766
Other crabs	22,367	23,400	28,438	33,976	38,385
Molluscs	367,157	385,141	350,844	397,814	375,926
Common squid	120,351	119,724	88,924	106,153	104,758
Other squids, cuttlefishes	110,996	128,215	127,800	162,914	138,275
Octopuses	28,740	22,920	22,169	18,672	19,014
Abalones	16,981	19,991	17,757	18,142	17,376
Short necked clam	23,121	26,809	26,673	26,109	28,504
Common scallop	17,567	20,679	21,956	21,365	29,707
"Mogai" clam	1,112	293	515	800	825
Other clams, shellfishes	48,289	46,510	45,050	43,659	37,467

BY SPECIES, 1979～1983

Unit: Million yen

Species	1979	1980	1981	1982	1983
Echinodermata, etc.	40,095	40,177	42,412	45,257	45,678
Sea urchins	19,200	18,994	21,600	20,832	20,179
Sea cucumbers	5,167	5,106	5,098	5,211	5,376
Other marine animals	15,728	16,077	15,714	19,214	20,123
Marine mammals	129	260	212	256	350
Seaweeds	34,261	41,336	33,413	42,046	38,157
Kelps	25,009	30,450	23,779	31,502	26,692
"Wakame" seaweed	1,751	2,649	2,597	1,931	1,734
Agar-agar	2,292	1,686	1,467	1,371	1,893
Others	5,209	6,551	5,570	7,242	7,838
Marine Cultures	422,892	468,738	456,516	455,557	518,627
Yellowtails	132,318	139,553	150,222	146,401	133,261
Pearl	32,176	46,062	48,925	47,817	59,825
Oyster	23,138	28,462	27,215	29,768	30,950
Common scallop	11,274	11,938	17,184	20,823	23,574
"Nori" laver	157,694	152,874	121,718	106,654	156,209
"Wakame" seaweed	10,355	13,916	9,783	14,910	13,913
Others	55,937	75,933	81,469	89,184	100,895
Inland Water Fisheries	52,705	57,822	62,533	70,871	62,360
Salmons, trouts	4,001	5,448	5,800	6,949	3,845
Sweet fish	20,814	21,550	23,690	23,481	21,853
Common carp, crucian carp	6,392	7,049	6,524	7,055	6,172
Eel	3,076	2,103	1,490	1,859	3,101
Fresh water clams	6,634	6,459	9,699	11,043	10,720
Others	11,788	15,213	15,330	20,484	16,669
Inland Water Cultures	116,415	110,986	106,431	124,750	116,951
Trouts	14,347	17,636	14,165	14,297	11,600
Sweet fish	12,266	9,802	12,341	14,304	11,349
Common carp, crucian carp	12,664	10,758	10,648	11,901	10,396
Eel	71,465	63,605	58,996	73,213	72,220
Others	5,673	9,185	10,281	11,035	11,386
Whalings	10,704	12,605	11,128	13,172	13,161

I — 5 CATCH IN QUANTITY AND VALUE

Type of Fisheries	1979		1980	
	Q	V	Q	V
Total 1)	10,590,423	2,647,948	11,121,846	2,771,173
Marine Fisheries	9,476,793	2,055,936	9,908,554	2,133,627
Mother ship types				
Mother ship type trawl.....	542,780	45,457	553,678	42,282
Mother ship type salmon fishery..	15,449	15,191	15,441	14,681
Mother ship type crab fishery....	---	---	---	---
Mother ship type tuna long line..	---	---	---	---
Trawls				
Large trawls in N.Pacific Ocean..	595,962	81,617	667,791	75,526
Large trawl in Southern Ocean ...	222,848	49,231	202,816	47,880
Large trawl in East China Sea....	199,478	69,322	198,705	73,567
Shrimp trawl	3,105	7,676	3,437	8,081
Medium trawl (one boat operation)	853,704	102,162	799,710	103,263
(two boats operation)	59,320	19,101	60,090	20,330
Small trawls	355,119	154,240	343,403	154,8 34
Surrounding nets				
Large and medium surrounding net	2,397,823	160,187	2,562,588	182,739
(one boat operation).....	44,485	1,916	61,646	2,769
(two boats operation).....	548,292	48,588	559,692	54,369
Purse seine(one boat operation)..	258,564	21,632	256,859	22,536
(two boats operation).	5,494	2,969	5,329	2,929
Others				
Lift nets				
Saury stick held dip net	266,741	18,402	180,328	19,150
Others	136,093	15,163	178,856	18,465
Gill nets				
Salmon drift gill net	26,077	19,948	26,069	17,969
Others	349,748	113,421	382,306	137,122
Seine nets				
Beach seine	6,882	2,404	7,469	1,928
"Patchi" seine	88,838	17,629	125,337	13,476
Boat seine	123,524	39,228	164,570	37,496
Set nets				
Salmon large set net	69,977	65,986	59,413	52,924
Other large set net	184,774	51,519	246,499	54,861
Small set nets	146,751	48,160	156,160	49,425
Anglings				
Skipjack pole-and-line				
on distant waters	197,870	57,854	206,822	69,826
Skipjack pole-and-line				
on offshore waters	143,424	35,987	143,145	46,645
Skipjack pole-and-line				
on coastal waters	20,165	6,954	23,674	8,974
Mackerel angling	10,023	1,952	6,264	928
Squid angling	333,850	165,845	451,209	161,272
Others	89,660	63,021	88,939	64,064
Long lines				
Tuna long line on distant waters	2) 205,042	2) 220,799	211,997	212,735
Tuna long line on offshore waters	97,164	64,475	106,231	67,374
Tuna long line on coastal waters	24,312	14,706	23,063	15,454
Salmon long line	1,964	1,566	1,929	1,151
Others	93,949	46,601	103,942	48,358
Others				
N. Pacific Ocean tanner crab				
fishery	3) 15,731	3) 9,061	7,892	4,702
N. Pacific Ocean long line				
and gill net	29,664	8,932	46,800	10,831
Shellfish collecting	180,061	55,936	176,157	61,996
Seaweed collecting	183,272	33,380	179,890	40,673
Other fisheries	348,834	97,718	312,331	110,042
Marine Cultures	882,620	422,892	991,843	468,738
Inland Water Fisheries	136,441	52,705	127,735	57,822
Inland Water Cultures	94,569	116,415	93,714	110,986
Antarctic mother ship type	2,933	6,410	3,279	7,703
N. Pacific mother ship type.....	226	890	-	-
Coastal large type	1,321	2,770	1,499	4,230
Coastal small type	438	630	413	672

Notes: 1) Excluding whalings.

BY FISHERY TYPE, 1979～1983

Unit { Quantity: Metric tons
Value: Million yen

1981		1982		1983	
Q	V	Q	V	Q	V
11,318,653	2,777,938	11,388,138	2,964,039	11,967,382	2,903,230
10,142,996	2,152,458	10,231,114	2,312,861	10,696,562	2,205,292
542,087	41,380	516,862	47,814	450,381	44,769
15,445	13,989	15,429	16,492	15,414	10,935
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656,814	76,307	603,565	75,506		66,672
219,578	64,053	204,433	60,842	197,518	48,689
184,347	65,490	166,810	62,501	161,228	63,047
3,617	10,024	4,488	14,596	3,727	11,870
836,139	104,646	819,978	102,415	672,410	86,943
66,547	22,371	57,024	21,329	52,178	20,863
384,439	165,280	378,267	170,400	392,089	177,404
2,856,076	207,715	2,940,335	222,116	3,586,590	238,867
139,325	3,211	105,341	2,479	147,046	4,060
597,142	61,995	693,146	68,674	658,238	67,840
352,902	19,024	364,170	21,413	314,014	20,374
5,894	3,857	6,811	3,829	8,423	3,792
154,879	27,481	195,576	56,680	233,159	31,337
139,859	17,196	127,503	18,484	136,100	19,318
25,978	20,347	26,421	24,196	26,086	20,637
429,553	157,486	499,584	187,087	446,367	166,101
6,391	1,732	6,890	2,106	6,515	2,220
92,830	13,236	117,892	19,067	95,292	19,773
167,532	44,261	150,912	50,782	194,749	53,339
75,502	64,127	63,775	58,672	75,710	56,115
277,630	61,962	273,442	60,394	325,431	63,560
170,610	53,023	169,301	53,444	166,188	53,254
169,204	57,813	152,979	46,752	156,282	39,732
106,175	40,604	103,264	43,390	99,535	34,992
18,731	6,932	23,388	8,099	21,755	6,962
7,853	1,259	7,558	1,332	6,836	1,243
282,356	124,127	269,176	148,240	262,717	132,999
82,825	61,989	88,015	66,042	85,611	59,475
205,651	209,715	217,710	239,793	220,335	245,225
88,958	61,559	78,299	60,093	83,681	60,419
18,714	12,106	19,068	13,992	23,360	14,364
1,813	1,463	1,746	1,411	1,771	1,705
97,029	44,122	101,606	45,593	95,536	45,131
799	512	799	550	799	575
45,920	11,141	37,802	11,240	44,585	10,051
183,752	59,080	186,457	60,669	198,472	60,786
164,001	32,752	201,140	41,304	187,800	37,498
268,045	106,370	234,129	103,019	269,273	102,331
959,680	456,510	938,403	455,557	1,059,782	518,627
124,000	62,533	122,226	70,871	116,943	62,360
91,976	106,431	96,395	124,750	94,095	116,951
3,120	5,962	3,577	8,074	3,224	7,948
–	–	–	–	–	–
1,354	4,462	921	4,254	929	4,284
413	704	469	844	453	929

Notes: 2) Including mother ship type tuna long line
3) Including mother ship type crab fishery

I — 6 CATCHES OF MAJOR SPECIES

(1) Tunas, albacore

Unit: Metric tons

	1979	1980	1981	1982	1983
Total Catch	362,917	378,496	360,279	372,143	356,944
Tuna long line					
mother ship type	...	...	...	...	...
in distant waters	168,656	175,280	165,783	179,078	177,794
in offshore waters	66,429	74,164	63,312	55,757	58,025
in coastal waters	17,435	16,417	13,811	14,481	18,001
Skipjack pole-and-line	58,927	65,209	44,778	48,597	40,757
Surrounding nets	30,934	32,979	52,051	54,392	48,959
Others	20,536	14,447	20,544	19,838	13,475

(2) Marlins, swordfishes

Total Catch	43,357	44,122	47,455	44,479	48,024
Tuna long line					
mother ship type	...	...	...	...	...
in distant waters	24,465	23,359	26,964	27,688	29,650
in offshore waters	10,714	10,355	9,851	8,295	9,571
in coastal waters	2,220	2,329	1,834	1,891	2,434
Other gill nets	4,375	6,218	7,241	4,895	4,014
Others	1,583	1,861	1,565	1,710	2,355

(3) Skipjack

Total Catch	329,948	354,156	289,286	302,982	352,694
Skipjack pole-and-line					
in distant waters	153,609	166,068	148,704	128,882	138,138
in offshore waters	127,350	115,962	78,425	76,423	80,240
in coastal waters	16,922	13,538	10,556	12,841	12,801
Surrounding nets (one boat)	29,481	49,137	43,023	72,794	114,774
Surrounding nets (two boats)	106	175	-	1	-
Other anglings	7,715	6,476	3,843	6,717	6,717
Others	5,235	2,800	4,735	5,324	6,973

(4) Salmons, trouts

Total Catch	131,021	122,515	149,844	136,309	161,036
Mother ship type salmon fishery	15,449	15,441	15,445	15,429	15,414
Salmon drift gill net	26,077	26,069	25,978	26,421	26,086
Salmon large set net	65,992	52,197	71,485	58,968	72,149
Small set nets	9,879	9,690	12,476	11,158	13,601
Other long lines	2,001	2,860	2,910	3,250	4,669
Others	11,623	16,258	21,550	21,083	29,117

(5) Herring

Total Catch	6,819	11,154	8,901	24,197	8,357
Mother ship type trawl	14	15	-	-	-
Large trawl in Southern Ocean	-	-	-	-	-
Medium trawl(one boat)	3,823	9,585	8,006	22,459	7,355
Other gill nets	480	988	615	1,350	587
Others	2,502	566	280	388	415

Note : 1) Including mother ship type tuna long line.

BY FISHERY TYPE, 1979～1983

(6) Sardine, round herring

Unit: Metric tons

	1979	1980	1981	1982	1983
Total Catch	1,866,495	2,236,158	3,125,377	3,324,749	3,780,744
Surrounding nets (one boat)	1,448,395	1,677,905	2,369,434	2,585,512	3,120,175
Surrounding nets (two boats)	208,289	234,409	408,194	388,469	368,564
Other surrounding nets	88	342	548	883	574
Other lift nets	50,640	45,726	41,032	24,575	17,788
Set nets	114,194	179,277	232,454	222,298	229,661
Others	44,889	98,499	73,715	103,012	43,982

(7) Anchovy

Total Catch	134,577	150,606	160,467	197,453	207,601
Surrounding nets (one boat)	28,706	48,079	45,161	61,584	64,647
Surrounding nets (two boats)	31,789	37,288	42,655	46,043	51,810
Set nets	8,969	10,407	9,309	10,853	12,192
"Patchi" seine	33,332	22,784	32,685	34,022	38,599
Boat seine	24,404	25,750	25,404	37,117	31,802
Others	7,377	6,298	5,253	7,834	8,551

(8) Jack mackerel, scads

Total Catch	183,883	144,979	122,231	174,213	174,200
Surrounding nets (one boat)	159,689	118,984	98,137	144,859	139,543
Surrounding nets (two boats)	5,267	3,787	3,866	5,702	9,505
Other lift nets	4,835	8,585	4,326	5,382	3,825
Set nets	7,571	7,448	8,143	10,651	12,162
Others	6,521	6,175	7,759	7,619	9,165

(9) Mackerels

Total Catch	1,414,183	1,301,122	908,015	717,840	804,849
Surrounding nets (one boat)	1,150,945	1,092,895	744,037	617,639	655,655
Surrounding nets (two boats)	41,510	25,095	19,915	15,169	17,600
Mackerel pole-and-line	6,673	2,698	3,961	4,038	6,646
Set nets	24,527	26,830	23,195	19,919	15,150
Others	190,528	153,604	116,907	61,075	109,798

(10) Saury

Total Catch	277,960	187,155	160,319	206,958	239,658
Saury stick held dip net	266,652	180,250	154,789	195,484	233,044
Other gill nets	3,772	2,803	3,542	6,303	4,096
Set nets	7,262	4,055	1,945	4,327	2,393
Others	274	47	43	844	125

I — 6 CATCHES OF MAJOR SPECIES

(11) Yellowtails

Unit: Metric tons

	1979	1980	1981	1982	1983
Total Catch	44,970	42,009	37,774	38,443	41,822
Surrounding nets	10,677	10,008	6,623	5,424	7,589
Large set nets	12,545	10,236	11,678	12,813	15,005
Small set nets	5,191	5,188	4,468	4,979	4,786
Other gill nets	4,031	5,042	4,136	5,680	6,485
Other anglings	9,699	9,095	7,909	7,738	6,511
Others	2,827	2,440	2,960	1,809	1,446

(12) Flounders, halibuts, soles

Total Catch	288,896	288,881	296,572	274,856	257,424
Mother ship type trawl	56,739	58,707	67,304	59,522	47,253
Large trawls in N.Pacific Ocean	89,086	89,700	87,188	78,051	87,572
Large trawl in East China Sea	15,213	16,836	15,915	14,772	13,173
Medium trawls	50,648	47,488	48,828	44,236	39,538
Small trawls	27,924	27,019	27,627	26,173	26,229
Other gill nets	35,401	35,800	36,871	39,958	32,541
Others	13,885	13,331	12,839	12,144	11,118

(13) Cod

Total Catch	91,829	96,742	102,205	95,127	104,132
Mother ship type trawl	14,766	9,939	10,555	7,467	8,945
Large trawls in N.Pacific Ocean	19,005	19,319	19,502	12,722	18,086
Medium trawls	15,978	16,949	16,567	20,130	18,130
Other gill nets	11,089	11,904	17,886	20,711	20,021
Other long lines	13,810	3,377	2,367	1,399	1,354
Others	17,181	35,254	35,328	32,698	66,536

(14) Alaska pollack

Total Catch	1,551,116	1,552,421	1,595,302	1,567,481	1,434,428
Mother ship type trawl	464,803	479,734	452,815	441,308	389,634
Large trawls in N.Pacific Ocean	396,681	463,846	462,972	449,913	422,335
Medium trawls	524,599	431,381	479,422	467,472	442,882
Other gill nets	120,441	107,421	129,416	135,649	114,970
Other long lines	33,466	54,369	50,191	55,338	48,609
Others	11,126	15,670	20,486	17,801	15,998

(15) Sea breams

Total Catch	28,825	28,151	26,567	27,435	27,314
Large trawl in Southern Ocean	–	–	–	–	–
Large trawl in East China Sea	5,006	4,657	4,393	4,599	4,512
Small trawls	2,783	2,926	2,561	3,058	3,449
Other gill nets	3,052	3,286	3,070	2,947	2,951
Boat seine	3,912	3,899	3,550	4,077	3,423
Other angling and long lines	9,717	8,786	8,447	8,778	8,112
Others	4,355	4,567	4,546	3,976	4,867

BY FISHERY TYPE, 1979～1983 (Continued)

(16) Sand lance

Unit: Metric tons

	1979	1980	1981	1982	1983
Total Catch	110,484	201,226	162,448	126,658	120,163
Medium trawls	36,661	55,050	75,701	53,941	29,437
Other lift nets	33,154	74,875	35,800	30,539	30,658
"Patchi" seine	3,960	9,637	2,715	1,452	5,490
Boat seine	28,658	51,586	38,791	31,591	47,340
Small set nets	2,755	1,532	1,101	1,330	1,347
Others	5,296	8,546	8,340	7,805	5,885

(17) Lobster, shrimps, prawns

Total Catch	59,676	50,505	54,048	59,064	63,573
Large trawls in N.Pacific Ocean	-	-	-	-	-
Shrimp trawl	2,720	3,320	3,525	4,394	3,702
Large trawl in East China Sea	4,510	2,460	1,108	3,144	2,769
Medium trawls	3,852	3,124	3,756	3,808	3,713
Small trawls	36,808	31,424	32,411	34,395	39,383
Other surrounding nets	3	0	0	0	-
Others	11,783	10,177	13,248	13,323	14,006

(18) Crabs

Total Catch	80,359	77,560	76,227	90,342	100,906
Mother ship type crab fishery	...	...	...	...	...
Medium trawls	3,985	3,497	3,452	3,213	2,998
Small trawls	6,277	5,592	6,868	7,185	8,528
Other gill nets	3,408	3,570	3,306	3,475	3,899
Other fishery (crab cages,etc.)	50,326	56,632	61,324	69,639	78,439
Others	1)16,363	8,269	1,277	6,830	7,042

(19) Squids, cuttlefishes

Total Catch	519,747	686,611	516,500	550,438	538,595
Large trawl in Southern Ocean	30,201	62,321	54,063	62,729	42,150
Large trawl in East China Sea	26,931	26,624	23,117	26,307	29,797
Medium trawls	19,311	28,114	23,124	20,933	19,600
Set nets	15,288	22,863	21,604	13,742	21,821
Squid angling	363,272	451,046	282,091	269,041	262,333
Others	64,744	95,643	112,501	157,686	162,894

(20) Octopuses

Total Catch	65,441	46,105	52,236	43,206	41,648
Large trawl in Southern Ocean	19,818	17	7,845	725	-
Medium trawls	2,727	3,062	2,565	3,240	3,124
Small trawls	9,828	9,128	10,405	10,513	10,831
Other long lines	7,205	6,934	5,775	5,522	5,493
Other fishery (octopus pots)	22,024	22,377	20,896	18,910	17,787
Others	3,839	4,587	4,750	4,296	4,413

Note : 1) Including mother ship type crab fishery.

I — 7 INDEX OF FISHERY PRODUCTION BY TYPE OF FISHERIES, 1979～1983 (1980=100)

Unit : Number

Group	1979	1980	1981	1982	1983
Fisheries total	97.5	100.0	98.1	99.0	103.5
Marine fisheries and marine cultures	95.8	100.0	98.1	98.9	103.8
Distant water fisheries 1)	97.6	100.0	95.0	94.0	91.5
Offshore fisheries 2)	93.9	100.0	95.9	98.4	102.0
Coastal fisheries 3)	93.4	100.0	111.9	101.5	103.1
Marine cultures	93.4	100.0	103.5	99.6	115.2
Inland water fisheries and inland water cultures	100.8	100.0	98.7	102.1	100.1
Whalings	96.8	100.0	86.5	88.4	83.7

Notes : 1) This type of fisheries covers mother ship type fisheries, large trawl in Eastern China Sea, distant water trawls, tuna long line on distant water, skipjack pole-and-line on distant waters, North Pacific Ocean tanner crab fishing, North Pacific Ocean long line and gill net.

2) This type of fisheries covers fisheries operating with powered boat of more than 10 gross tonnage except for fisheries on distant waters, collecting shellfish, collecting seaweeds, set net and beach seine.

3) This type of fisheries covers fisheries operating without fishing boat, with non-powered boat, with powered boat less than 10 gross tonnage including collecting shellfish, collecting seaweeds, set net and beach seine.

4) The calculation method of the index is as follows:

(1) The items adopted amount to 120 commodities; 80 for marine fisheries, 14 for marine cultures, 4 for whaling, 15 for inland water fisheries, and 7 for inland water cultures.

(2) Formula

The index numbers are computed by the Laspeyres formula.

$$Q_{0t} = \frac{\Sigma W_0 (q_t / q_0)}{\Sigma W_0}$$

W_0 : Weights of the base period.

q_0 : Quantity of production in the base period.

q_t : Quantity of production in the current period.

(3) Weight

The weights were determined by the production value for 1979 and 1980 obtained by maltiplying quantity of production by price, and expressed as portions of 10,000.

I — 8 INDEX OF FISHERY PRODUCTION BY SPECIES, 1979～1983 (1980=100)

Item	1979	1980	1981	1982	1983
Marine Fisheries					
Bluefin tuna	89.4	100.0	118.2	89.3	74.0
Albacore	95.8	100.0	92.0	100.5	73.9
Bigeye tuna	105.9	100.0	89.7	107.0	113.0
Yellowfin tuna	83.7	100.0	92.4	96.0	94.5
Striped marlin	93.2	100.0	95.9	87.3	86.5
Brodbill swordfish	111.0	100.0	122.0	109.1	124.4
Skipjack	93.1	100.0	81.7	85.6	99.6
Sharks	100.4	100.0	87.4	82.7	84.0
Salmons	105.2	100.0	122.7	113.4	133.8
Trouts	114.6	100.0	120.5	102.1	121.0
Herring	61.1	100.0	79.8	216.9	74.9
Sardine	79.2	100.0	140.6	149.7	170.4
Anchovy	89.4	100.0	106.5	131.1	137.8
Jack mackerel	153.6	100.0	115.2	195.9	242.7
Mackerels	114.6	100.0	69.8	55.2	61.9
Saury	148.4	100.0	85.7	110.6	128.1
Yellowtail	107.1	100.0	89.9	91.5	99.6
Flounders, soles	100.1	100.0	103.0	95.3	89.0
Cod	95.0	100.0	105.6	98.3	105.6
Alaska pollack	99.8	100.0	102.8	100.9	92.4
Red sea bream	115.7	100.0	90.4	98.6	96.6
Sand lance	54.9	100.0	80.7	62.9	59.7
King crab	477.4	100.0	46.4	253.6	271.4
Common squid	85.2	100.0	59.4	54.9	58.0
Octopuses	112.8	100.0	113.3	93.7	90.3
Sea urchins	109.7	100.0	99.3	107.5	104.5
Sea cucumbers	104.6	100.0	90.3	94.0	92.5
Abalone	99.4	100.0	96.5	94.4	93.8
Kelp	105.4	100.0	89.9	116.9	103.4
Marine Cultures					
Yellowtail	103.7	100.0	101.0	98.0	104.4
"Kuruma" prawn	95.7	100.0	107.8	129.4	148.9
Oyster	78.7	100.0	90.0	95.8	96.9
Common scallop	108.0	100.0	146.3	190.3	210.7
"Nori" laver	91.9	100.0	99.5	77.5	106.7
"Wakame" seaweed	88.4	100.0	80.4	104.2	99.4
Inland Water Fisheries					
Salmons	66.6	100.0	91.7	98.9	89.8
Pond smelt	104.6	100.0	95.2	106.5	110.3
Sweet fish	100.7	100.0	104.6	101.0	105.8
Common carp	92.7	100.0	95.6	96.8	89.0
Crucian carp	108.7	100.0	91.4	83.9	79.5
Inland Water Cultures					
Rainbow trout, etc.	92.5	100.0	101.3	103.6	103.7
Sweet fish	105.8	100.0	118.8	128.0	129.2
Common carp	109.7	100.0	95.0	96.2	89.4
Eel	100.5	100.0	92.8	100.1	94.2

Ⅱ STRUCTURE OF FISHERY PRODUCTION

Ⅱ — 1 NUMBER OF MARINE FISHERIES ESTABLISHMENTS, 1979～1983

Type and size of management	1979	1980	1981	1982	1983
Grand Total	219,112	216,433	214,056	212,137	207,439
Without fishing boat	9,051	8,481	8,406	8,309	7,855
With non-powered boats	1,636	1,357	1,141	1,079	1,636
With powered boats					
Sub-total	150,438	149,087	148,071	147,796	145,889
Less than 3 G.T.	93,327	91,260	89,656	88,521	85,977
3 - 5	33,998	34,366	34,703	35,603	36,477
5 - 10	11,495	11,865	12,137	12,202	12,186
10 - 30	7,046	7,125	7,194	7,309	7,245
30 - 100	2,827	2,757	2,711	2,565	2,461
100 - 200	675	658	641	606	564
200 - 500	547	536	522	504	475
500 - 1,000	308	298	295	282	283
1,000 G.T. and over	215	222	212	204	221
Set nets and beach seine					
Sub-total	8,381	8,495	8,383	8,358	7,970
Large set nets	1,113	1,160	1,175	1,179	1,162
Small set nets	6,729	6,789	6,721	6,729	6,231
Beach seine	539	546	487	450	577
Culture					
Sub-total	49,606	49,013	48,055	46,595	44,089
Laver culture	24,882	24,162	22,857	21,196	19,056
Oyster culture	4,121	4,293	4,269	4,232	3,785
Pearl culture	1,783	1,794	1,803	1,840	1,882
Wakame seaweed culture ...	7,203	7,095	7,113	7,069	6,393
Yellowtail culture	3,560	3,457	3,399	3,287	3,102
Common scallop culture ...	3,482	3,191	3,284	3,378	3,892
Other cultures	4,575	5,021	5,330	5,593	5,979

Note : Excluding the number of fisheries establishments which engaged in fishing for less than 30 days in a year.

Ⅱ — 2 NUMBER OF MARINE FISHERY WORKERS, 1979～1983

Unit : Thousand men

	1979	1980	1981	1982	1983
Grand Total	467.8	457.4	449.0	437.2	446.5
Men	387.3	376.9	367.8	357.2	368.3
15 - 39 years old	125.4	118.2	111.1	103.8	111.5
40 - 59 years old	197.2	193.6	191.1	188.2	192.5
60 years old and over	64.7	65.1	65.5	65,2	64.3
Women	80.5	80.5	81.2	80.0	78.2

Ⅱ — 3 NUMBER OF FISHING BOATS, 1979～1983

Unit : Number

Size	1979	1980	1981	1982	1983
Total	444,413	449,847	445,060	445,116	442,436
Marine	423,820	428,854	424,207	424,582	422,996
Non-powered	28,402	27,504	25,767	24,143	21,876
Powered	395,418	401,350	398,440	400,439	401,120
Less than 5 G.T.	359,984	364,867	361,780	363,875	364,620
5 - 9	15,211	15,896	16,196	16,248	16,480
10 - 49	12,924	13,190	13,244	13,364	13,172
50 - 99	3,911	3,943	3,823	3,640	3,523
100 - 199	1,453	1,450	1,415	1,382	1,371
200 - 499	1,689	1,758	1,749	1,693	1,704
500 - 999	72	71	63	54	54
1,000 G.T. and over	174	175	170	183	196
Inland Water	20,593	20,993	20,853	20,534	19,440
Non-powered	6,319	5,277	5,640	5,867	6,276
Powered	14,274	15,716	15,213	14,667	13,164
Less than 5 G.T.	14,274	15,707	15,203	14,652	13,147
5 G.T. and over	-	9	10	15	17
Number of F.R.P. Boats in Marine Total	168,493	191,556	210,142	225,585	240,507
Less than 1 G.T.	54,994	63,644	65,221	70,252	78,212
1 - 3	69,025	80,585	89,085	95,715	99,450
3 - 5	32,877	37,120	40,635	43,202	45,353
5 - 10	6,938	7,947	9,102	9,799	10,557
10 - 20	4,215	4,762	5,507	5,977	6,279
20 G.T. and over	444	490	592	640	656

Ⅱ — 4 GROSS TONNAGES OF FISHING BOATS, 1979～1983

Unit : G.T.

Size	1979	1980	1981	1982	1983
Total	2,790,159	2,833,684	2,806,689	2,815,494	2,872,777
Marine	2,775,048	2,815,194	2,787,955	2,796,869	2,855,202
Non-powered	25,250	24,153	23,186	21,996	20,458
Powered	2,749,797	2,791,041	2,764,769	2,774,873	2,834,743
Less than 5 G.T.	627,970	639,939	645,676	654,912	650,159
5 - 9	120,022	125,524	128,458	129,840	131,220
10 - 49	250,153	252,374	250,645	249,662	243,462
50 - 99	304,334	305,776	295,164	279,258	270,773
100 - 199	207,358	205,635	202,151	197,764	196,273
200 - 499	560,814	584,007	583,506	566,977	570,830
500 - 999	56,070	55,189	48,621	42,671	42,936
1,000 G.T. and over	623,073	622,598	610,547	653,790	729,091
Inland Water	15,111	18,490	18,734	18,626	17,576
Non-powered	3,381	2,681	3,092	3,024	3,093
Powered	11,729	15,809	15,642	15,602	14,483
Less than 5 G.T.	11,729	15,742	15,567	15,493	14,352
5 G.T. and over	-	67	75	109	131
Gross Tonnages of F.R.P. Boats in Marine Total	445,406	506,363	564,917	608,030	637,619
Less than 1 G.T.	39,718	45,709	47,503	50,981	54,644
1 - 3	117,735	135,535	150,192	162,755	168,639
3 - 5	143,719	161,905	177,502	188,338	197,341
5 - 10	55,554	63,423	73,014	78,971	84,421
10 - 20	64,744	73,464	84,753	92,045	96,538
20 G.T. and over	23,932	26,326	31,951	34,939	36,035

III MARKETING OF FISHERY PRODUCT

III — 1 QUANTITY AND PRICE OF LANDINGS BY COMMODITY AT FISH MARKETS IN PRODUCING AREAS, 1983

Commodity	Quantity of landings	Price
Total of fishes, other marine animals, marine mammals	6,704,065	130
Bluefin tuna		
Fresh	11,657	1,287
Frozen	16,375	3,251
Albacore		
Fresh	14,888	432
Frozen	27,563	338
Bigeye tuna		
Fresh	9,927	1,473
Frozen	89,174	847
Yellowfin tuna		
Fresh	18,186	730
Frozen	59,394	436
Other tunas		
Fresh	10,262	499
Frozen	5,747	300
Striped marlin		
Fresh	2,126	757
Frozen	4,842	809
Broadbill swordfish		
Fresh	8,051	668
Frozen	6,292	747
Black marlins		
Fresh	2,236	562
Frozen	8,889	534
Other swordfish, marlins and sailfish		
Fresh	1,698	751
Frozen	695	342
Skipjack		
Fresh	70,282	250
Frozen	221,606	191
Salmons		
Fresh	40,212	593
Frozen	260	866
Salted	13,231	1,044
Salmons (Pink and cherry salmons)		
Fresh	7,471	575
Frozen	1,412	674
Salted	1,813	429
Sardine	3,021,665	23
Round herring	14,845	129
Jack mackerel	88,755	376
Scads	39,657	189
Mackerels	641,979	88
Saury	211,198	138
Bastard halibut	4,099	1,414
Flounders, soles		
Fresh	60,263	404
Frozen	23,952	346
Cod		
Fresh	44,409	160
Frozen	23,707	263
Alaska pollack		
Fresh	828,272	64
Frozen	7,320	135
Atka mackerel	31,423	120
"Menuke" Rockfishes		
Fresh	2,886	771
Frozen	5,284	506
"Kichiji" Rockfishes	5,759	868
Sand fish	5,066	279
Deep sea smelts	3,973	176
Sharks		
Fresh	25,230	138
Frozen	1,867	230
Yellow croaker	615	195
Other croakers	22,841	228
Lizard fishes	10,417	173
Butter fish	4,440	527
Sharp toothed eel	11,981	260
Hairtail	19,678	182
Gurnards	1,159	365
Skates and rays	7,394	188
Rod sea bream	5,318	1,469
Crimson sea bream	627	1,127
Yellow sea bream	7,128	971
Black sea bream	156	1,127
Yellowtails	20,426	681
Spanish mackerels		
Fresh	33,121	478

Notes : 1) The quantity of landings is of the 51 fishing ports in the producing areas.
2) The prices here show the average prices per Kg, which are obtained by dividing the value of landings by the quantities of landings.

Unit { Quantity: Metric tons
Price: yen per Kg

Commodity	Quantity of landings	Price
Dolphin fishes	7,147	171
Flying fishes	1,186	387
Mallets	401	347
Common sea bass	389	1,298
Herring	6,515	291
Sand lance	51,646	95
Anchovy	26,013	74
Post larval	599	496
Other fishes		
Fresh	260,366	265
Frozen	30,915	465
Cuttlefishes		
Fresh	7,620	347
Other squids and cuttlefishes	196,928	354
Octopuses		
Fresh	10,283	285
Frozen	66	168
Spiny lobster	65	5,105
"Kuruma" prawn	206	2,341
Other lobster, prawn and shrimps		
Fresh	5,639	878
Frozen	911	2,271
King crab	8	743
Tanner crab	736	1,858
Blue crabs	856	462
Other crabs	45,011	240
Sea urchins		
With shells	218	1,434
Shelled	332	9,560
Sea cucumbers	718	612
Other marine animals		
Fresh	28,039	109
Frozen	-	-
Marine mammals	626	144

Commodity	Quantity of landings	Price
Total of shellfishes		
With shell	16,525	324
Shelled	865	827
Abalones with shell	229	2,992
Top shell with shell	375	1,250
Hard clams		
With shell	9	415
Short-necked clams		
With shell	979	382
Common scallop		
With shell	9,651	229
Shelled	-	-
Hen clams		
With shell	526	745
Shelled	63	2,976
Oyster		
With shell	62	497
Shelled	310	715
Other shellfishes		
With shell	4,694	253
Shelled	492	625
Total of seaweeds		
Fresh	929	299
Dried	4,234	939
"Kombu" tangle		
Dried	4,140	922
"Wakame" seaweed		
Fresh	408	182
Dried	41	2,054
Other seaweeds		
Fresh	521	382
Dried	52	1,214

Note : 1) Quantity is expressed in unit of 10,000 sheets and price 10 sheets.

Ⅲ — 2 QUANTITY AND PRICE OF ARRIVALS BY COMMODITY AT TOKYO CENTRAL WHOLESALE MARKETS, 1983

Unit { Quantity: Metric tons / Price: yen per Kg

Commodity	Quantity of arrivals	Price
Fresh		
Marine fishes	176,572	892
Bluefin tuna	3,767	2,214
Albacore	142	521
Bigeye tuna	2,304	2,275
Yellowfin tuna	1,996	1,154
Other tunas	2,141	842
Striped marlin	346	1,623
Broadbill swordfish	1,079	904
Blue marlins	249	591
Other marline	5	239
Skipjacks	9,980	567
Salmons	2,980	732
Salmons (Pink and cherry salmons)	356	895
Sardine	10,539	184
Round herring	138	450
Jack mackerel	15,563	690
Mackerels	10,329	352
Saury	11,297	458
Common squid	8,327	771
Bastard halibut	856	2,098
Flat fishes	7,082	919
Cod	2,821	332
Atka mackerel	747	140
Rock fishes	1,744	1,243
Sharks	1,889	284
Yellow croaker	-	-
Other croakers	992	411
Sharp toothed eel	176	1,241
Hairtail	926	581
Red sea bream	1,514	1,826
Crimson sea bream	293	2,055
Yellow sea bream	56	1,121
Yellowtail	19,814	911
Fishery	4,575	784
Culture	15,239	949
Spanish mackerels	2,497	776
Flying fishes	935	544
Common sea bass	299	1,323
Other fishes	40,484	965
Cuttlefish	1,306	917
Other squids and cuttlefishes	3,103	759
Octopuses	561	536
Spiny lobstor	150	5,635
"Kurumaebi" prawn	90	6,295
"Taisho ebi" prawn	162	2,794
Other shrimps	3,075	2,497
Crabs	1,343	1,759
Other marine animals	2,119	4,490
Inland water fishes	4,192	1,382
Shellfishes	54,652	728
Abalones with shell	981	4,137
Short necked clam with shell	9,232	361
Oyster shelled	4,296	957
Freshwater clam with shell	4,060	291
Other shellfishes	36,083	752
Frozen		
Bluefin tuna	12,130	3,166
Albacore	3,223	392
Bigeye tuna	43,104	1,097
Yellowfin tuna	4,616	749
Other tunas	-	-
Striped marlin	3,054	1,129
Bradbill swordfish	6,214	967
Blue marlins	525	559
Other marlins	314	570
Skipjack	707	445
Salmons	24,608	908
Salmons (Pink and cherry salmons)	1,930	529
Jack mackerel	4,746	344
Mackerels	7,426	354
Saury	3,359	430
Common squid	14,817	568
Flat fishes	10,072	551
Cod	3,224	364
Rock fishes	2,938	469
Sea breams	3,059	431
Spanish mackerels	2,803	531
Herring	3,649	342
Other fishes	42,986	675
"Mongo-ika" cuttlefish	12,330	1,001
Other cuttlefishes	21,689	480
Octopuses	15,597	585
"Taisho ebi" prawn	377	3,107
Meat of whale		
Fresh	389	1,636
Frozen	1,722	1,142
Processed fishery product		
Salted and dried		
Sardine, round herring	9,834	331
Jack mackerel, scad	13,334	613
Mackerels	2,754	407
Saury	7,338	379
Salted		
Salmons	31,532	938
Salmons(Pink and cherry salmons)	1,694	695
Mackerels	135	422
Other salted product	20,837	2,394
Processed whale products	541	1,833
Seaweeds	7,053	366
Other processed fishers products	203,188	603

Note: The prices here show the average price which are obtained by dividing the value of arrivals by the quantities of arrivals.

Ⅲ — 3 PRICES OF MAJOR FISHERY PRODUCTS BY STEPS OF DISTRIBUTION IN TOKYO, 1983

Unit : Yen per kg

commodity		Wholesale price	Broker price	Retail price	Ratio of retail price to wholesale price
Bigeye tuna 1)	frozen	1,094	1,766	4,656	426
Yellowfin tuna 1)	frozen	-	-	-	-
Skipjack tuna 1)	fresh	582	791	1,808	311
Chum salmon 1)	salted	1,027	1,189	1,872	182
Sardine (Round fish)	fresh	264	351	554	210
Jack mackerel (Round fish)	fresh	1,115	1,490	2,022	181
Mackerel (Round fish)	fresh	410	555	780	190
	frozen	-	-	-	-
Saury (Round fish)	fresh	580	681	1,096	189
	frozen	-	-	-	-
Yellowtails 1)	fishery	-	-	-	-
	cultured	952	1,059	3,202	336
Common squid (Round fish)	fresh	847	1,023	1,395	165
	frozen	995	1,271	2,057	207
Oyster (Without shell)	fresh				

Note : 1) Round fish for wholesale and broker price and sliced meat for retail price.

Ⅲ－4 PROCESSED FISHERY

Proceseed products 1)	1979	1980	1981	1982	1983
Boiled and dried	98.0	97.9	93.2	102.3	107.1
Anchovies	78.4	79.6	73.7	82.9	86.3
Jack mackerel	1.1	0.6	-	-	-
Sand lance	9.1	9.1	9.1	9.7	11.0
Others	11.1	8.6	10.4	9.7	9.8
Cured	126.5	124.6	113.6	118.9	118.0
Mackerels	31.0	27.9	22.5	19.9	18.6
Skipjack	32.4	32.0	29.6	35.4	35.5
Others	63.1	64.7	61.5	63.6	63.9
Dried	30.6	32.7	34.8	37.1	39.6
Herring	14.4	12.1	14.8	17.3	17.6
Squids	5.9	11.5	11.6	9.4	11.1
Others	10.3	9.1	8.4	10.4	11.0
Dressed frozen	145.5	153.1	186.5	211.1	235.9
Frozen	3,171.6	3,134.2	3,622.4	3,902.1	3,933.2
Albacore, tunas	202.1	212.4	193.1	234.4	232.0
Cod, Alaska pollack	101.0	128.7	204.2	256.8	195.0
Halibut, flounders	112.3	113.0	108.8	122.5	101.7
Mackerels	574.8	508.3	319.3	272.0	343.9
Marlins	23.5	22.7	26.7	31.4	34.0
Sardines, anchovies	475.2	515.0	1,053.7	1,222.1	1,300.3
Saury	230.6	150.3	141.8	174.3	178.6
Skipjack	148.7	167.4	142.5	129.8	143.9
Squids, cuttlefishes	251.5	282.9	313.5	379.1	358.3
Whales	15.4	15.7	14.2	19.0	19.0
Minced fish meats	367.6	364.2	354.9	373.0	379.9
Others	668.9	653.6	749.7	658.6	646.6
Kneaded	976.2	911.1	948.9	960.9	996.2
"Chikuwa" 2)	177.2	174.4	180.7	187.7	194.9
Fish sausage	106.8	87.4	91.9	95.2	98.1
"Kamaboko" 3)	402.4	362.1	359.6	352.1	346.6
Others	289.8	287.2	316.7	325.9	356.6
Manure and feed	962.6	952.5	992.8	1,094.0	1,233.1
Fish meal	560.0	517.5	514.0	567.7	655.4
Dried press cake	238.5	254.4	290.8	320.3	384.7
Others	164.1	180.6	188.0	206.0	192.9
Oil and fat	253.4	263.1	279.1	313.1	349.9
Fish oil, fish viscera oil	245.8	255.9	277.3	308.4	346.9
Whale oil	7.6	7.2	5.8	4.7	3.0
Salted	250.9	255.7	284.1	290.8	326.9
Alaska pollack roe, cod roe	25.0	32.2	41.8	41.9	46.0
Cod, Alaska pollack	18.4	18.6	19.1	23.4	23.2
Herring roe, salmon roe	10.4	11.9	13.9	15.0	16.3
Mackerels	62.0	63.4	59.1	37.5	45.0
Salmons	78.2	79.9	93.5	108.3	133.3
Trouts	17.5	17.5	21.3	22.3	18.2
Others	39.4	32.2	35.4	42.4	44.9

PRODUCTS, 1979～1983

Unit { Thousand metric tons / Canned: ton

Processed products	1979	1980	1981	1982	1983
Salted and dried	255.3	275.5	260.2	270.9	273.7
Jack mackerel	52.4	51.9	47.0	49.1	47.5
Mackerels	30.0	30.2	27.4	23.2	21.4
Sardines, anchovies	71.0	77.3	68.4	69.2	73.4
Saury	32.2	35.2	34.2	36.0	36.3
Others	69.7	80.9	83.2	93.4	95.1
Smoked	11.3	10.6	11.7	12.0	13.5
Salmons, trouts	1.7	1.7	1.9	2.5	3.2
Squids, cuttlefishes	4.0	3.8	5.5	4.7	6.2
Whale meat	1.1	0.9	0.4	1.2	1.5
Others	4.5	4.2	3.9	3.6	2.6
Others	351.4	337.5	338.8	352.3	360.7
Canned 4)					
Total	397,532	448,415	425,771	399.275	361.044
(Actual number of thou. cases)	(36,688)	(41,838)	(41,398)	(40,044)	
Shellfish	12,171	12,521	10,528	12,183	10,718
Crabs	3,363	4,785	4,555	3,961	3,871
Jack mackerel	-	-	-	-	-
Mackerels	203,803	235,932	169,648	126,462	100,060
Prawns, shrimps	53	71	56	33	49
Salmons, trouts	4,814	8,284	9,487	6,694	7,183
Sardines, anchovies	53,957	67,575	92,276	108,626	89,527
Saury	8,043	7,306	10,290	9,554	10,210
Squids, cuttlefishes	3,340	4,041	3,955	3,308	3,063
Tunas, skipjack	95,130	94,520	111,042	113,071	125,469
Whale	7,620	7,833	8,261	10,037	5,461
Others	5,238	5,548	5,673	5,346	

Notes : 1) Excluding dried seaweeds.

2) Baked products of kneaded fish meat with seasonings.

3) Steamed products of kneaded fish meat with seasonings.

4) Surveyed by the Canners Association of Japan.

Ⅲ－5 VALUE OF IMPORTS AND EXPORTS

Imports

Year	Total	Live	Fresh and frozen			Salted dried and smoked
			Shrimps	Skipjack, tunas and marlins	Others	
1971	153,345	7,779	73,335	11,538	32,832	13,838
1972	190,338	12,418	89,918	10,422	36,754	22,878
1973	300,074	17,752	118,207	14,171	71,137	40,052
1974	323,240	19,862	117,571	21,684	90,242	42,059
1975	384,529	24,862	137,517	39,527	107,412	35,166
1976	563,649	30,680	223,128	46,206	150,745	58,279
1977	657,714	32,437	219,509	68,205	191,668	63,167
1978	676,455	32,132	222,528	46,963	238,577	78,434
1979	930,764	29,126	313,168	69,552	331,739	111,625
1980	764,319	32,023	248,866	59,158	267,176	59,969
1981	879,881	32,022	279,642	70,113	330,894	80,361
1982	1,046,745	27,442	341,217	85,589	410,399	87,873
1983	1,003,124	38,316	317,836	82,830	380,758	82,127

Exports

Year	Total	Fresh and Frozen		Salted, dried and smoked		
		Skipjack, tunas and marlins	Others		Jack mackerel and mackerels	Salmons
1971	146,662	13,794	25,487	4,230	23,140	18,796
1972	162,179	17,752	36,629	4,513	23,286	17,196
1973	173,494	21,632	44,688	4,745	26,259	10,419
1974	201,965	24,331	42,714	5,398	35,554	12,993
1975	168,696	3,289	38,357	5,783	35,732	15,102
1976	220,833	13,958	49,288	5,942	34,477	17,625
1977	184,180	12,906	37,389	5,877	44,423	3,723
1978	171,250	13,849	30,654	5,736	35,406	3,144
1979	196,363	10,957	35,175	6,723	35,442	139
1980	265,314	25,064	36,237	8,370	52,830	126
1981	253,830	12,791	34,234	9,897	43,740	1,343
1982	262,830	11,224	38,559	13,377	33,140	107
1983	265,807	10,014	45,431	10,586	20,899	51

BY COMMODITY, 1971～1983

Unit: Million yen

Raw agar-agar	Fish meals	Pearls	Oil and fat	Prepared	Dried laver	Others
610	1,414	1,315	356	5,721	1,337	3,272
775	3,266	1,550	351	7,384	768	3,854
1,309	8,738	2,175	445	14,784	2,958	6,339
2,142	3,404	2,158	569	18,934	59	6,563
1,748	5,856	3,147	904	22,884	221	6,285
2,153	5,485	4,871	665	30,660	42	10,735
1,596	24,827	6,079	452	32,182	264	12,328
1,759	9,341	7,839	1,252	28,042	-	9,588
2,386	9,773	8,996	1,371	38,717	-	14,311
3,700	17,251	13,828	1,523	41,791	-	19,034
2,368	10,662	13,926	1,483	40,976	-	17,434
2,942	4,937	11,731	1,271	53,751	-	19,593
3,121	11,381	13,294	1,791	52,010	-	19,660

Unit: Million yen

Canned				Oil and fat		Pearls	Others
Sardines and anchovies	Tunas and Skipjack	Crabs	Others	Whale oil	Others		
99	23,016	3,966	5,218	4,681	2,431	12,599	9,205
338	27,091	1,724	5,875	1,555	1,893	14,189	10,138
712	24,440	315	5,072	1,693	3,048	17,867	12,604
834	29,119	644	5,627	3,930	11,268	17,484	12,069
1,343	27,664	454	3,646	1,959	5,481	17,679	12,207
7,536	35,932	890	4,367	1,447	7,696	22,920	19,355
8,227	25,626	581	3,784	1,412	12,059	10,296	17,877
7,951	25,007	62	3,654	522	17,665	8,818	18,782
10,164	26,536	25	3,233	-	15,910	32,090	19,969
13,179	35,461	59	3,450	-	13,809	51,392	25,337
21,168	31,989	70	2,832	-	13,873	54,285	27,608
26,145	29,287	157	3,043	-	13,028	51,746	43,017
16,385	26,292	295	2,931	-	17,934	68,200	46,789

Ⅲ－6 VALUE OF IMPORTS AND

Imports

Year	Total	U. S. A. 1	Republic of Korea 2	Taiwan 3	Canada 4	Indonesia 5	India 6
1971	153,345	10,236	17,327	13,324	3,396	8,336	8,601
1972	190,338	7,570	24,623	17,322	7,310	14,992	12,358
1973	300,074	24,243	42,273	25,338	17,401	22,235	17,750
1974	323,240	16,326	62,763	28,746	14,167	24,504	17,391
1975	385,529	21,768	85,639	44,186	13,363	29,513	27,847
1976	563,649	28,441	115,752	54,625	27,547	48,431	40,984
1977	657,714	62,310	129,344	67,545	44,879	48,802	35,229
1978	676,455	104,710	100,497	66,459	53,974	47,024	36,340
1979	930,764	143,769	132,817	80,065	59,620	60,345	55,978
1980	764,319	98,963	116,568	79,868	29,214	54,101	44,436
1981	879,881	147,228	133,037	84,206	41,081	49,409	54,439
1982	1,046,745	176,678	153,770	94,883	62,784	62,469	71,520
1983	1,003,124	155,921	145,792	111,117	45,134	57,818	62,046

Exports

Year	Total	U. S. A. 1	Netherlands 2	Nigeria 3	Taiwan 4	Hong Kong 5	Papua New Guinea 6
1971	146,662	40,107	6,985	134	2,071	3,011	1,356
1972	162,179	59,753	4,992	507	2,996	4,053	1,478
1973	173,494	61,664	4,088	386	5,939	4,662	2,325
1974	201,965	62,373	14,400	1,176	5,841	4,378	3,157
1975	168,696	38,142	9,935	3,851	8,363	5,290	2,697
1976	220,833	57,042	11,972	4,718	11,969	7,403	4,623
1977	184,180	39,447	14,171	11,117	9,500	7,636	4,709
1978	171,250	33,574	18,813	14,785	11,266	7,833	6,368
1979	196,363	36,122	15,076	12,158	11,723	10,539	4,693
1980	265,314	54,175	12,126	16,287	9,862	17,559	5,789
1981	253,830	49,136	11,149	21,997	10,381	15,290	7,747
1982	262,830	60,938	7,621	17,483	19,327	19,003	5,853
1983	265,807	81,258	11,405	6,682	16,325	19,478	5,371

EXPORTS BY COUNTRY, 1971～1983

Unit: Million yen

China	Spain	Australia	Thailand	Hong Kong	Mexico	U. S. S. R.	Malaysia	Others
7	8	9	10	11	12	13	14	15
11,049	9,332	7,206	7,902	5,651	7,856	2,936	5,063	35,130
15,261	8,763	8,516	10,295	5,485	7,102	2,481	6,158	42,102
20,824	9,444	10,795	14,082	5,879	12,323	6,067	8,122	63,298
29,020	17,872	11,179	12,901	7,069	7,075	10,307	5,827	58,093
22,651	19,655	11,235	20,934	8,743	7,891	8,383	6,236	57,385
24,750	27,844	21,160	28,846	15,257	13,516	10,947	15,122	90,427
19,962	19,754	25,496	23,733	18,981	10,213	14,662	15,647	121,157
32,489	24,701	24,328	24,305	16,530	14,877	13,978	11,537	104,706
43,252	43,260	41,503	38,447	19,116	12,642	16,241	18,864	164,845
49,433	38,410	28,391	29,034	14,710	8,955	15,946	10,488	145,802
48,999	32,100	42,057	35,912	15,679	8,254	16,789	11,857	158,834
41,505	28,324	46,188	45,945	15,643	12,805	18,932	12,693	202,606
40,657	26,636	41,990	39,725	13,308	10,970	18,356	15,780	217,874

Unit: Million yen

Canada	United Kingdom	Australia	Singapore	Saudi Arabia	Philippines	S. Africa	Switzerland	Others
7	8	9	10	11	12	13	14	15
4,833	15,761	4,971	2,834	146	6,549	1,428	3,507	47,216
5,963	12,622	4,741	2,328	373	5,200	1,175	4,533	44,662
7,437	10,520	5,363	3,463	902	5,301	1,973	6,146	46,826
7,151	10,983	8,383	3,618	1,406	8,316	3,091	4,729	57,764
6,843	12,354	5,227	5,428	1,713	7,770	2,881	4,668	48,939
8,831	14,877	8,747	3,798	2,287	8,300	4,097	6,204	59,030
6,033	4,850	5,862	4,763	4,491	5,891	3,989	3,864	62,150
5,766	5,056	3,985	3,920	3,300	3,179	2,979	2,583	47,843
6,968	6,235	3,924	3,519	3,273	3,789	2,867	8,265	67,112
7,184	7,389	4,856	5,606	7,032	6,165	5,759	12,747	92,778
5,290	8,597	6,080	4,479	6,239	6,429	7,786	9,941	83,289
5,799	7,335	5,555	6,383	6,845	7,850	4,897	9,488	78,453
7,579	8,116	5,217	5,469	5,508	1,279	7,122	12,036	72,962

Ⅲ－7 VALUE OF IMPORTS AND EXPORTS (by Country, and by Commodity)

Imports

Country of origin	Total	Live	Fresh and			
			Shrimps	Squids & cuttlefish	Octopuses	Skipjack, tunas and marlins
Total	1,003,124	38,316	317,836	55,739	45,569	82,830
U.S.A.	155,921	461	53	62	-	2,008
Republic of Korea	145,792	2,475	5,339	12,244	4,694	33,948
Taiwan	111,117	29,327	22,274	1,104	24	28,052
India	62,046	-	60,554	1,005	-	-
Indonesia	57,818	3	51,083	8	-	2,027
Canada	45,134	272	571	64	-	564
Australia	41,990	1,146	32,778	-	-	623
China	40,657	2,886	14,337	138	5	2
Thailand	39,725	274	17,020	9,047	699	28
Spain	26,636	-	23	4,826	18,000	2,030
Other	276,288	1,470	113,804	27,241	22,147	13,548

Exports

Country of destination	Total	Fresh and frozen products	Salted dried and smoked		
				Mackerels	Salmons
Total	265,807	55,445	10,586	20,899	51
U.S.A.	81,258	23,371	2,424	100	3
Hong Kong	19,478	735	3,478	161	-
Taiwan	16,325	458	3,405	-	10
Switzerland	12,036	45	1	-	-
Notherland	11,405	135	23	11	-
West Germany	10,992	1,501	23	2	-
United Kingdom	8,116	203	40	-	5
Canada	7,579	1,068	92	79	-
Republic of South Africa	7,122	1,764	5	6	-
Nigeria	6,682	9	1	5,084	-
Other	84,814	26,156	1,094	15,456	33

OF FISHERY PRODUCTS, 1983

Unit: Million yen

frozen			Salted dried and smoked	Raw agar-agar	Fish meals	Pearls	Oil and fat	Prepared	Others
Salmons & trouts	Crabs	Others							
85,002	21,353	173,095	82,127	1,214	11,381	13,294	1,791	52,010	21,569
78,036	10,524	33,877	25,751	36	2,570	234	239	558	1,513
912	3,157	51,000	9,292	473	105	0	8	10,605	11,539
-	70	5,023	155	20	-	-	6	23,906	604
-	-	29	1	-	-	86	-	361	10
-	-	20	2,444	-	-	1,278	48	172	735
4,077	4,379	11,076	23,658	-	15	1	-	455	17
-	-	2,178	-	-	-	3,482	-	1,725	58
62	2,108	4,646	6,369	-	-	5,976	-	3,234	894
-	-	3,760	5,680	-	-	85	-	3,088	44
-	-	1,259	-	54	-	-	346	57	41
1,915	1,115	60,227	8,777	631	8,691	2,152	1,144	7,849	6,114

Unit: Million yen

Canned products				Oil and fat	Pearls	Others
Sardines and anchovies	Tunas and skipjacks	Crab	Others			
16,385	26,292	295	2,932	17,934	68,200	46,786
661	5,389	127	1,483	126	32,743	14,831
375	108	5	233	2	6,134	8,167
-	14	-	17	223	51	12,145
30	2,602	-	1	-	9,245	111
185	86	-	1	10,345	332	287
-	231	-	4	2,018	7,047	168
864	1,659	-	7	1,775	1,278	2,284
39	3,518	-	730	4	1,588	458
1,637	2,739	-	96	201	562	111
1,578	10	0	-	-	-	-
11,016	9,936	163	360	3,240	9,220	8,224

Ⅲ－8 FOOD BALANCE SHEET ON

Description	1979	1980	1981	1982	1983
(FISH AND SHELLFISH) (Live weight base)	9,948	10,425	10,671	10,753	11,181
Domestic production					
For domestic consumption	10,736	10,734	11,121	11,264	11,550
Fresh and frozen	2,896	3,009	2,928	2,812	2,867
Dried, salted and smoked	2,244	2,393	2,379	2,434	2,495
Kneaded	1,968	1,870	1,939	1,928	1,975
Fish sausage	149	120	127	132	135
Canned	289	274	304	337	362
Feeds	3,190	3,068	3,444	3,621	3,716
For exports	1,015	1,023	1,019	1,264	927
Fresh and frozen	194	202	158	140	156
Canned	535	603	494	450	349
Others for food use	9	12	15	27	42
Feeds	277	206	352	647	380
Change in stock	Δ 96	357	128	Δ 248	536
For food use	Δ 90	Δ 35	10	126	133
For feeds	Δ 6	392	118	Δ 374	403
Imports	1,707	1,689	1,597	1,527	1,832
For food use	1,235	1,027	1,200	1,320	1,383
For feeds	472	662	397	207	449
Domestic supply	12,127	12,768	12,665	12,487	13,462
For food use	8,666	9,110	8,751	8,593	8,963
Domestic production	6,959	7,421	7,154	7,066	7,131
Imports	1,707	1,689	1,597	1,527	1,832
For feeds	3,461	3,666	3,914	3,894	4,499
Domestic production	2,989	3,004	3,517	3,687	4,050
Imports	472	662	397	207	449

FISHERY PRODUCTS, 1979～1983

Unit: Thousand metric tons

Description	1979	1980	1981	1982	1983
(WHALE)					
Domestic production	19	19	20	20	21
For domestic consumption	19	19	20	20	21
For exports	0	0	0	0	0
Imports	27	25	19	20	19
Domestic supply	46	44	39	40	40
For food use	46	44	39	40	40
For feeds	-	-	-	-	-
(SEAWEED) (dried weight base)					
Domestic production	129	139	130	127	142
For domestic consumption	123	133	125	121	137
For exports	5	6	5	6	5
Imports	49	55	51	53	56
Domestic supply	174	188	176	174	193
For food use	143	157	150	143	158
For feeds	31	31	26	31	35
Per capita food supply (unit : kgs)					
Fish and shellfishes	65.0	65.5	65.1	64.4	65.6
Whales	0.4	0.4	0.3	0.3	0.3
Seaweeds	1.2	1.3	1.3	1.2	1.3
Population (Unit: Million persons) 1).....	116	117	118	119	119

Note: 1) Data are based on the surveys undertaken as of October 1st of the year.

Ⅲ — 9 AVERAGE CONSUMPTION IN QUANTITY OF FISHERY

(1) Workers household(Cities With population of 50,000 and over)

Unit: gram

Item	1979	1980	1981	1982	1983
Fresh and frozen					
Cod, Alaska pollack	732	774	706	661	648
Flounders, halibuts	2,653	2,754	2,856	2,828	2,510
Jack mackerel	2,390	2,122	1,836	2,585	2,630
Mackerels	2,740	2,806	2,678	1,808	1,693
Salmons, trouts	943	1,056	1,046	984	1,213
Sardines, anchovies	2,235	2,285	2,233	2,453	2,513
Saury	2,479	2,177	1,763	1,549	2,445
Sea breams	1,139	1,013	968	994	997
Shellfishes	5,673	5,400	5,709	6,075	5,588
Shrimp, prawn, crab	3,903	3,855	3,782	3,348	3,210
Skipjack	1,289	1,159	1,004	1,212	1,216
Squids, cuttlefishes	6,365	7,522	6,991	5,837	5,922
Tunas, marlins	3,617	3,540	3,513	3,331	3,370
Yellowtail	2,566	2,433	2,184	2,186	2,411
Others	16,471	14,617	14,501	15,283	9,224
Processed fishery products					
Boiled and dried anchovies .	609	687	639	700	654
Canned (case)	14.96	14.08	14.75	16.54	17.65
Cured	---	---	---	---	---
Dried anchovies	811	797	883	924	821
Dried jack mackerel	1,416	1,415	1,163	1,309	1,423
Dried "Kombu" and "Wakame"kelp	2,482	2,622	2,518	2,609	2,658
Dried squids	167	185	163	157	159
Fish sausage	2,451	1,866	1,614	1,510	1,543
Kneaded	---	---	---	---	---
Salted salmons and trouts .	3,329	3,716	3,769	3,765	4,059
Others	---	---	---	---	---
Whale meat	520	513	549	541	406
Beef	10,103	9,639	9,891	10,288	10,214
Pork	20,986	21,357	20,195	20,147	19,322
Chicken	14,111	14,440	14,179	14,747	14,380
Ham, Sausage	8,212	8,666	8,741	8,695	8,505
Milk, eggs	---	---	---	---	---
Seasonings	451	404	371	331	---
Expense for dining out.....	---	---	---	---	---
Number of family members ...	3.80	3.78	3.75	3.73	3.70

PRODUCTS PER HOUSEHOLD, 1979～1983

(2) Farm household

Unit: gram

Item	1979	1980	1981	1982	1983
Fishery products					
Fresh and frozen					
Cod, Alaska pollack	2,200	2,540	2,390	---	---
Flounders, halibuts	2,930	2,960	3,080	---	---
Jack mackerel	2,470	2,060	2,050	2,650	2,640
Mackerels	8,090	9,430	7,620	5,900	5,150
Salmons, trouts	---	---	---	---	---
Sardines, anchovies	5,520	6,050	5,570	5,080	4,640
Saury	4,170	4,160	3,200	2,600	3,960
Sea breams	890	940	910	1,000	1,150
Shellfishes	4,700	4,730	5,440	---	---
Shrimp, prawn, crab	2,340	2,590	2,590	1,610	1,640
Skipjack	3,950	3,850	3,140	3,280	2,680
Squids, cuttlefishes	7,120	8,660	7,850	7,800	6,890
Tunas, marlins	4,030	4,240	4,180	4,630	4,520
Yellowtail	3,230	3,080	2,880	3,380	3,480
Others	---	---	---	---	---
Processed fishery products					
Boiled and dried	2,650	2,670	2,830	---	---
Canned	3,930	3,850	3,730	---	---
Cured	860	860	830	---	---
Dried "nori"	---	---	---	---	---
Dried "kombu"and"Wakame"Kelp	2,310	2,500	2,600	---	---
Dried squids	570	750	730	---	---
Fish sausage	1,580	1,540	1,400	---	---
Kneaded	10,260	10,700	10,080	12,820	9,640
Salted salmons and trouts	3,780	4,320	4,040	4,900	5,150
Others	---	---	---	---	---
Whale meat	---	---	---	---	---
Beef	5,150	5,020	5,450	7,590	7,720
Pork	16,600	16,220	16,250	15,970	15,870
Chicken	12,810	13,130	12,940	13,420	13,240
Ham, sausage	6,860	---	---	---	---
Milk, eggs	---	---	---	---	---
Seasonings	1,170	1,080	1,000	---	---
Expense for dining out .	---	---	---	---	---
Number of family members	4.45	4.40	4.40	4.37	4.37

Ⅲ -10 AVERAGE CONSUMPTION IN VALUE OF FISHERY

(1) Workers household (Cities With population of 50,000 and over)

Unit: yen

Item	1979	1980	1981	1982	1983
Net income	3,963,132	4,196,232	4,445,244	4,758,864	4,899,456
Food expense	836,881	886,159	913,609	946,102	954,353
Fishery products	132,758	136,574	139,266	146,314	143,844
Fresh and frozen	69,477	72,278	72,566	76,174	74,254
Cod, Alaska pollack	518	572	526	494	489
Flounders, halibuts	3,137	3,398	3,574	3,706	3,459
Jack mackerel	2,756	2,667	2,583	3,294	3,117
Mackerels	1,226	1,371	1,405	1,053	969
Salmons, trouts	1,413	1,586	1,661	1,668	1,828
Sardines, anchovies	837	931	937	1,076	1,141
Saury	1,634	1,518	1,546	1,737	2,020
Sea breams	2,257	2,289	2,213	2,391	2,391
Shellfishes	5,381	5,684	6,014	6,594	6,359
Shrimp, prawn, crab	8,614	8,959	9,073	8,502	8,294
Skipjack	1,874	1,895	1,756	2,122	2,018
Squids, cuttlefishes	6,871	7,268	6,799	6,815	6,844
Tunas, marlins	8,768	9,308	9,274	9,547	8,903
Yellowtail	5,382	5,358	5,146	5,154	5,314
Others	18,809	19,474	20,059	22,021	21,108
Processed fishery products	62,484	63,463	65,806	69,226	68,829
Boiled and dried anchovies	793	907	869	1,013	989
Canned	2,734	2,832	3,099	3,471	3,506
Cured	1,456	1,452	1,517	1,591	1,504
Dried "nori"	5,547	5,797	5,677	5,392	5,201
Dried "Kombu" and "Wakame" Kelp	2,387	2,763	2,803	2,943	3,072
Dried squids	606	632	576	596	620
Fish sausage	1,682	1,286	1,141	1,059	1,068
Kneaded	11,484	11,254	12,122	12,239	12,366
Salted salmons and trouts	6,896	7,406	7,651	7,922	7,721
Others	28,899	29,134	30,351	33,000	33,179
Whale meat	798	833	895	914	761
Beef	28,904	30,116	31,017	32,704	32,507
Pork	29,090	29,596	29,944	30,444	29,854
Chicken	13,762	14,405	14,831	15,311	14,778
Ham, Sausage	13,137	14,385	14,871	15,128	15,210
Milk, eggs	42,661	44,895	45,859	44,815	43,606
Seasonings	975	934	923	839	---
Expense for dining out	126,467	134,092	130,358	139,710	144,666
Number of family members	3.80	3.78	3.75	3.73	3.70

PRODUCTS PER HOUSEHOLD, 1979～1983

(2) Farm household

Unit: yen

Item	1979	1980	1981	1982	1983
Net income	4,417,700	4,515,200	4,772,500	4,964,700	5,121,800
Food expense	855,100	903,500	939,900	958,700	987,200
Fishery products	126,153	134,679	138,940	152,226	150,846
Fresh and frozen	74,641	78,659	81,753	85,788	84,419
Cod, Alaska pollack	1,494	1,836	1,861	1,760	1,695
Flounders, halibuts	3,034	3,465	3,631	3,549	3,235
Jack mackerel	2,530	2,308	2,559	3,123	3,050
Mackerels	3,234	3,751	3,774	3,464	3,118
Salmons, trouts	---	---	---	---	---
Sardines, anchovies	1,633	1,772	1,816	1,955	1,844
Saury	2,430	2,444	2,251	2,452	2,948
Sea breams	1,965	2,186	2,236	2,442	2,573
Shellfishes	2,942	3,101	3,699	3,927	3,766
Shrimp, prawn, crab.....	4,901	5,651	6,002	5,867	6,009
Skipjack	3,599	3,830	3,691	4,200	3,404
Squids, cuttlefishes	7,656	8,867	8,313	8,289	8,036
Tunas, marlins	9,708	10,818	11,300	11,907	11,787
Yellowtail	5,551	6,188	6,145	6,550	6,565
Others	23,964	22,442	24,475	26,303	26,389
Processed fishery products..	51,599	56,023	57,187	66,438	66,427
Boiled and dried anchovies .	3,453	3,522	3,819	4,489	4,326
Canned	2,563	2,694	2,746	3,141	3,021
Cured	2,005	2,086	2,116	2,259	1,946
Dried "nori"	5,126	5,602	5,432	2,080	2,549
Dried "Kombu"and"Wakame"kelp	3,380	3,880	3,932	4,248	4,788
Dried squids	1,919	2,479	2,341	2,259	1,946
Fish sausage	1,009	1,007	975	1,332	1,376
Kneaded	9,655	10,689	10,939	11,754	11,769
Salted salmons and trouts.	6,686	7,438	7,465	8,498	8,666
Others	17,418	23,693	21,819	16,759	26,040
Whale meat	---	---	---	---	---
Beef	14,615	14,947	16,634	18,148	18,771
Pork	21,806	22,328	22,719	23,162	23,155
Chicken	12,182	13,233	13,565	14,282	14,203
Ham	6,408	6,924	7,473	7,856	---
Milk, eggs	38,800	40,700	41,259	41,909	---
Seasonings	2,291	2,286	2,213	2,304	---
Expense for dining out.....	65,251	73,172	76,726	79,728	87,685
Number of family members ..	4.45	4.40	4.40	4.37	4.37

Ⅳ ECONOMY OF FISHERY ESTABLISHMENTS

Ⅳ－1 NATIONAL AVERAGE OF FISHERIES HOUSEHOLD ECONOMY, 1979～1983

Item	Unit	1979	1980	1981	1982	1983
Number of family members	Person	4.3	4.3	4.1	4.1	4.0
Number of non-powered fishing boats used	Boat	0.3	0.3	0.3	0.3	0.4
Number of powered fishing boats used	"	1.0	1.0	1.1	1.1	1.1
Tonnage of powered fishing boats used	Ton	2.7	2.7	2.7	2.8	2.8
Number of fishing days	Day	150	148	145	146	144
Number of workers on the sea	Person	478	474	456	.466	465
Working hours on the sea	Hours	2,558	2,502	2,391	2,464	2,377
Catches	kg	9,916	9,605	9,105	9,322	9,246
Price of fish cought	Yen/kg	449	480	-	-	-
Fishery earning	1000 yen	4,528.3	4,695.6	4,468.0	4,820.8	4670.5
Non-fishery earning	"	458.8	413.8	408.5	436.9	472.9
Non-business earning	"	1,885.4	2,030.8	2,269.0	2,504.3	2,538.4
Fishery expenditure	"	2,135.4	2,258.7	2,282.4	2,538.5	2,464.4
Employees wages	"	454.4	396.1	361.9	397.8	360.3
Maintenance of fishing boats	"	165.4	162.5	161.3	170.2	184.5
Expenditure for fishing gears	"	183.2	179.8	178.4	191.1	178.0
Oil	"	345.7	471.9	493.6	569.8	511.1
Miscellaneous facilities	"	21.9	20.1	13.3	17.1	15.9
Depreciation	"	480.5	508.2	552.5	619.4	653.5
Non-fishery business expenditure	"	243.9	197.7	199.1	207.7	238.9
Non-business expenditure	"	132.6	120.2	147.4	152.2	179.3
Household expenditure	"	2,890.1	3,114.8	3,262.4	3,341.5	3,426.1
Taxes, public charges and obligation	"	443.6	467.3	520.5	566.2	630.6
Income of fishery household	"	4,360.6	4,563.6	4,516.6	4,863.6	4,799.2
Business income	"	2,607.8	2,653.0	2,395.0	2,511.5	2,440.1
Fishery income	"	2,392.9	2,436.9	2,185.6	2,282.3	2,206.1
Non-fishery income	"	214.9	216.1	209.4	229.2	234.0
Non-business income	"	1,752.8	1,910.6	2,121.6	2,352.1	2,359.1
Surplus of fishery household economy	"	1,026.9	981.5	733.7	955.9	742.5
Property						
Fixed assets	"	7,660.0	7,921.3	8,240.3	9,020.0	9,168.3
Land	"	876.2	886.4	894.0	1,141.5	1,196.8
Building	"	3,718.3	3,862.3	3,962.0	4,274.9	4,276.3
Hull of fishing boats	"	1,055.6	1,067.7	1,139.6	1,218.4	1,218.9
Engines of fishing boats	"	1,018.1	1,103.9	1,195.6	1,240.2	1,272.1
Fishing nets and long lines	"	277.1	271.3	286.9	302.6	307.7
Non-fixed assets	"	6,362.8	6,979.8	7,504.6	7,947.0	9,120.8
Debts	"	1,887.4	1,914.1	2,092.0	2,364.8	2,420.6

Notes: 1) Fishery household in this table refers to the household engaging in fishing with less than 10 tons fishing boat. The data show the average per fishery household.
2) Income of fishery household = Fishery income + Non-fishery business income + Non-business income. Surplus of fishery household economy = Income of fishery household - (Taxes, public charges and obligations + household expenditure)
3) Duration of this statistics is for a calendar year. Property is accounted at the beginning of the year.

Ⅳ－2 NATIONAL AVERAGE OF SMALL AND MIDDLE SIZE FISHERY ENTERPRISE ECONOMY, 1979～1983

Item 1), 2)	Unit	1979	1980	1981	1982	1983
Gross tonnage of fishing boats used	Ton	93.18	93.61	88.21	90.19	88.15
Number of workers on the boat	Person	14.4	13.9	12.9	12.8	12.6
Earnings from fishery	1000 yen	124,780	134,152	131,323	143,826	140,604
Fishery expenditures	"	121,091	135,914	132,856	142,304	139,689
Employees wages	"	45,946	47,396	46,506	49,561	48,993
Maintenance of fishing boats ..	"	8,852	8,822	8,427	8,710	8,927
Expenditure for fishing gears .	"	4,230	4,671	4,428	4,741	4,556
Oil	"	17,515	28,159	28,732	31,287	29,878
Bait	"	3,851	3,850	3,583	3,729	4,295
Ice	"	1,308	1,419	1,320	1,448	1,447
Fish container	"	1,598	2,070	1,789	1,839	1,702
Miscellaneous materials	"	1,431	1,428	1,433	1,510	1,494
Miscellaneous facilities	"	232	254	214	252	220
Rents and charge	"	2,463	2,850	2,607	2,984	3,474
Brokerage	"	5,380	5,861	5,605	6,138	5,820
Costs for business	"	6,078	6,372	6,439	6,383	6,312
Tax upon fishery business	"	965	915	733	827	838
Other	"	6,205	6,893	6,338	6,944	6.960
Depreciation	"	15,037	14,954	14,703	15,949	14,772
Estimated family wages	"	1,403	1,457	1,477	1,662	1,660
Fishery profit 3)	"	2,286	Δ 3,219	Δ 3,010	Δ 140	Δ 745
Assets (final)	"	160,532	161,269	159,480	168,613	176,025
Fixed assets	"	87,578	91,909	88,998	93,836	93,727
Fixed assets for fishery	"	60,053	62,137	61,064	63,275	61,969
Non-fixed assets	"	72,954	69,360	70,482	74,778	82,301
Liabilities (final)	"	144,472	149,979	153,986	162,684	174,138
Net worth	"	16,060	11,290	5,494	5,930	1,888
Net profit	"	2,275	Δ 2,189	Δ2,504	563	Δ 1,389
Interest on liabilities	"	6,413	7,604	7,948	8,155	8,413
Sales profit 4)	%	1.8	Δ 2.4	Δ 2.3	Δ 0.1	Δ 0.5
Costs for physical expenditure ...	1000 yen	59,005	70,990	69,723	74,860	72,794
Added value	"	65,775	63,162	61,600	68,966	67,810
Added value per worker	"	4,568	4,512	4,775	5,388	5,382
Wage per worker	"	3,191	3,410	3,605	3,872	3,888
Capital equipment ratio 5)	"	4,544	5,109	5,524	5,623	5,873
Ratio of net worth out of total capital	%	10.0	7.0	5.9	4.1	2.8
Ratio of profit out of total capital	"	1.4	Δ 1.4	Δ 1.6	0.3	Δ 0.8

Notes: 1) Small and middle size fishery enterprise refers to the enterprise engaging in fishery with fishing boats of 10 gross tonnage and over but excluding the bit enterprises with capital paid of 100 million yen and over.
2) Data show an average per fishery enterprise.
3) Fishery profit = Earnings from fishery - fishery expenditures - estimated family wages.
4) Sales profit = Fishery profit ÷ earnings from fishery x 100.
5) Capital equipment ratio means fixed assets for fishery per worker engaged normally in fisheries.

REFERENCE TABLES

1 CATCH BY COUNTRY OF THE WORLD, 1978～1982

Unit: Thousand metric tons

Country	1978	1979	1980	1981	1982
Total	73,629	74,424	75,681	78,114	79,855
Japan	10,822	10,589	11,124	11,323	11,408
U.S.S.R.	8,930	9,067	9,496	9,563	9,972
China	5,986	5,561	5,825	5,764	6,309
U.S.A.	3,578	3,671	3,797	3,816	4,067
Peru	3,472	3,715	2,735	2,740	3,452
Norway	2,714	2,768	2,536	2,700	2,650
India	2,306	2,340	2,442	2,444	2,335
Republic of Korea	2,351	2,420	2,391	2,794	2,637
Thailand	2,101	1,946	1,793	1,989	1,920
Denmark	1,740	1,738	2,028	1,852	1,927
Chile	1,959	2,697	2,891	3,503	3,846
Indonesia	1,648	1,748	1,849	1,910	2,027
Korea D.P.R.P.	1,260	1,330	1,400	1,500	1,550
Iceland	1,579	1,661	1,525	1,450	802
Philippin	1,582	1,581	1,672	1,773	1,897
Canada	1,401	1,445	1,362	1,429	1,414
Spain	1,380	1,212	1,271	1,263	1,356
Viet Nam	860	895	930	965	1,000
Brazil	803	855	820	829	850
France	805	780	831	810	805
Mexico	739	925	1,278	1,594	1,536
Bangladesh	645	646	650	687	725
South Africa	631	669	626	610	627
Poland	571	601	640	630	605
Malaysia	685	696	736	804	683
UK England and Wales	549	494	398	350	314
Korea	541	565	585	595	584
Argentina	542	583	400	375	488
Nigeria	519	535	480	496	512
UK Scotland	457	383	400	476	552
Ecuador	617	609	667	687	637

2 CATCH BY SPECIES OF THE WORLD, 1978~1982

Unit: Thousand metric tons

	1978	1979	1980	1981	1982
Total	73,629	74,424	75,681	78,114	79,855
Carps, barbels and other cyprinids	586	608	630	720	763
Tilapias and other cichlids.....	327	354	390	451	499
Miscellaneous freshwater fishes...	4,850	4,947	5,202	5,539	5,723
Sturgeons, padolefishes, etc.	28	29	29	29	29
River eels	75	85	94	81	85
Salmons, trouts, smelts, etc.	631	762	803	870	798
Shads, milkfishes, etc.	815	770	774	854	947
Miscellaneous diadromous fishes ..	143	148	120	138	153
Flounders, halibuts, soles, etc. .	1,209	1,149	1,084	1,089	1,127
Cods, hakes, haddocks, etc.	10,299	10,606	10,739	10,635	10,969
Redfishes, bases, congers, etc. ..	5,585	5,302	5,293	5,211	5,286
Jacks, mullets, sauries, etc.	8,116	7,857	7,323	8,015	7,836
Herrings, sardines, anchovies etc.	14,368	15,697	16,150	17,387	18,299
Tunas bonitos, billfishes, etc. .	2,462	2,417	2,562	2,584	2,593
Mackerels,sneks,cutlassfishes,etc.	4,755	4,425	4,052	3,737	3,559
Sharks, rays, chimaeras, etc.	592	592	612	615	623
Miscellaneous marine fishes	7,646	7,285	7,888	8,408	8,480
Freshwater crustaceans	91	91	98	98	113
Sea-spiders, crabs, etc.	763	787	797	761	765
Lobsters, spiny-rock lobsters,etc.	106	111	106	108	111
Squat-lobsters, nephrops, etc. ...	85	77	56	70	62
Shrimps, prawns, etc.	1,692	1,583	1,661	1,643	1,695
Krill,plankonic crustaceans,etc. .	143	333	477	448	580
Miscellaneous marine crustaceans..	60	70	67	77	83
Freshwater molluses	203	255	272	254	281
Abalones, winkles, conchs, etc. ..	72	76	85	88	91
Oysters	899	873	972	955	956
Mussels	577	608	620	660	638
Scallops, pectens, etc.	432	404	368	570	500
Clams, cockles, arkshells, etc. ..	1,122	1,110	1,228	1,327	1,304
Squids,cuttlefishes,octopuses,etc.	1,328	1,513	1,529	1,354	1,567
Miscellaneous marine molluscs	114	110	123	113	111
Porpoises, dolphins, etc.	3	3	4	2	1
Miscellaneous aquatic mammals	2	1	1	1	1
Frogs and other amphibians	1	1	1	1	1
Turtles and other reptiles	10	8	6	6	6
Sea-squirts and other tunicates ..	6	4	5	5	4
Horseshoe crabs and other arachnoids	0	0	0	0	0
Sea-urchins, sea-cucumbers, etc....	62	66	56	59	66
Miscellaneous aquatic invertebrates	79	81	22	61	96
Pearls,mother-of-pearl,shells,etc.	8	7	7	5	6
Corals	0	0	0	0	0
Sponges	0	0	0	0	0
Aquatic bird guano, eggs, etc. ...	34	36	30	27	18
Brown seaweeds	2,421	2,357	2,470	2,182	2,211
Red seaweeds	703	737	789	799	800
Green seaweeds and other algae ...	3	3	9	4	9
Miscellaneous aquatic plants	98	90	80	76	63

APPENDIX

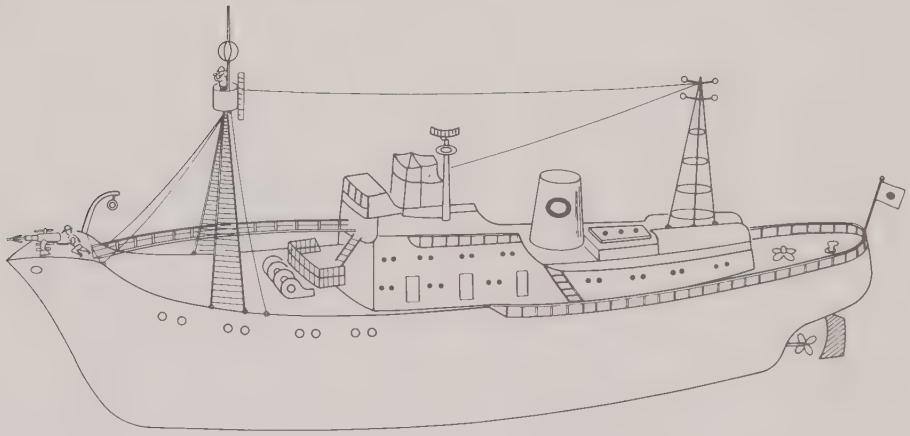
ILLUSTRATION OF TYPES OF FISHERIES

1. Mother Ship Type Whaling

Catcher boat

Mother ship

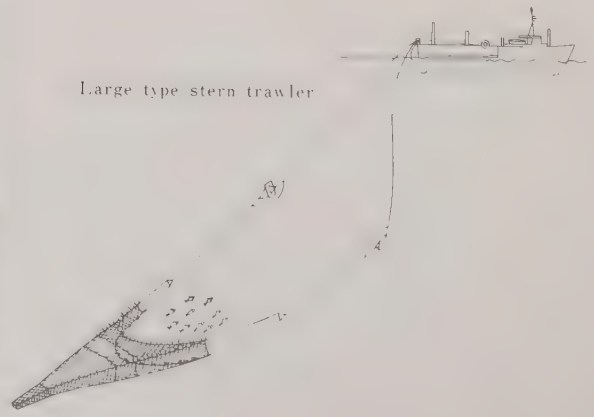
Catcher boat



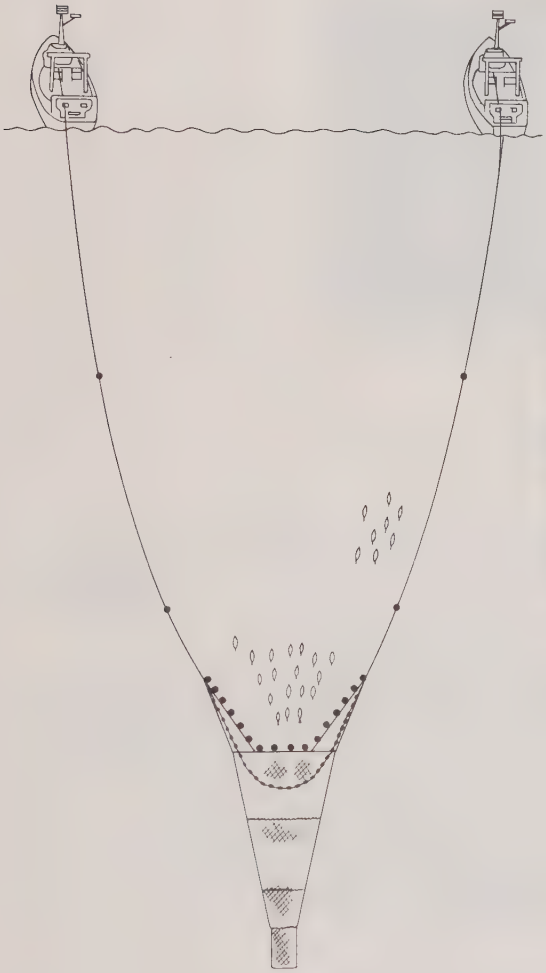
2. Distant Water Trawl

1500 Tonnage type stern trawler

Large type stern trawler



3. Large Trawl in East China Sea

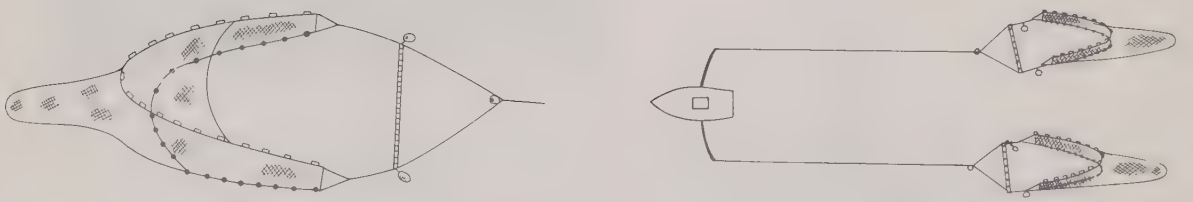


4. Medium Trawl

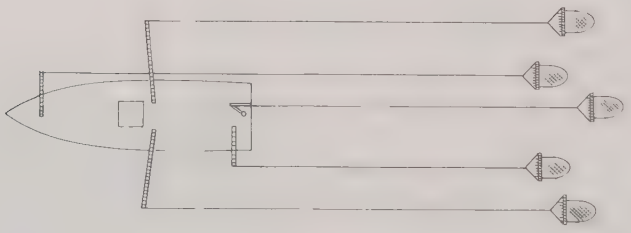
124 Tonnage type stern trawler

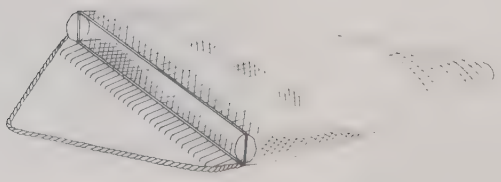
5. Small Trawl

Small trawler for shrimps

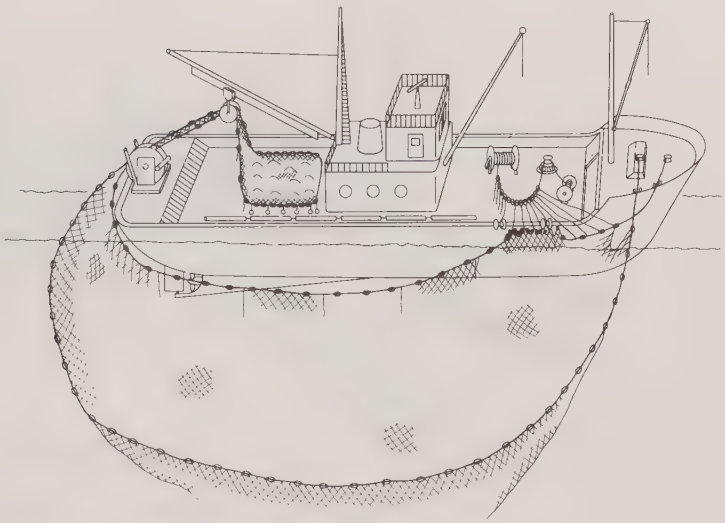


6. Small Trawl With Drag Nets for Scalop



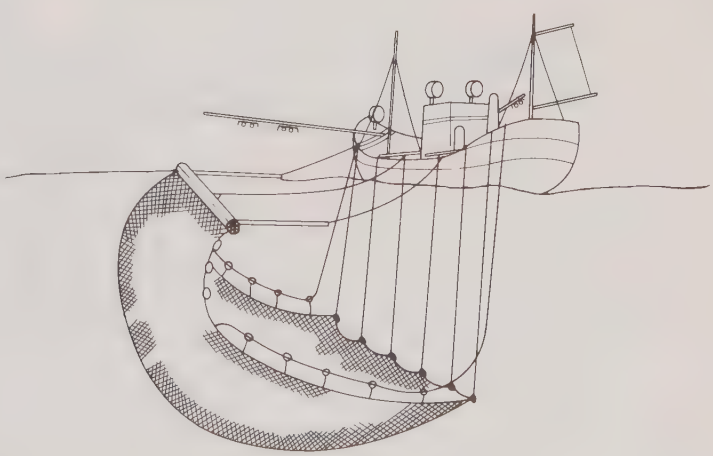


7. Purse Seine (One Boat Operation)

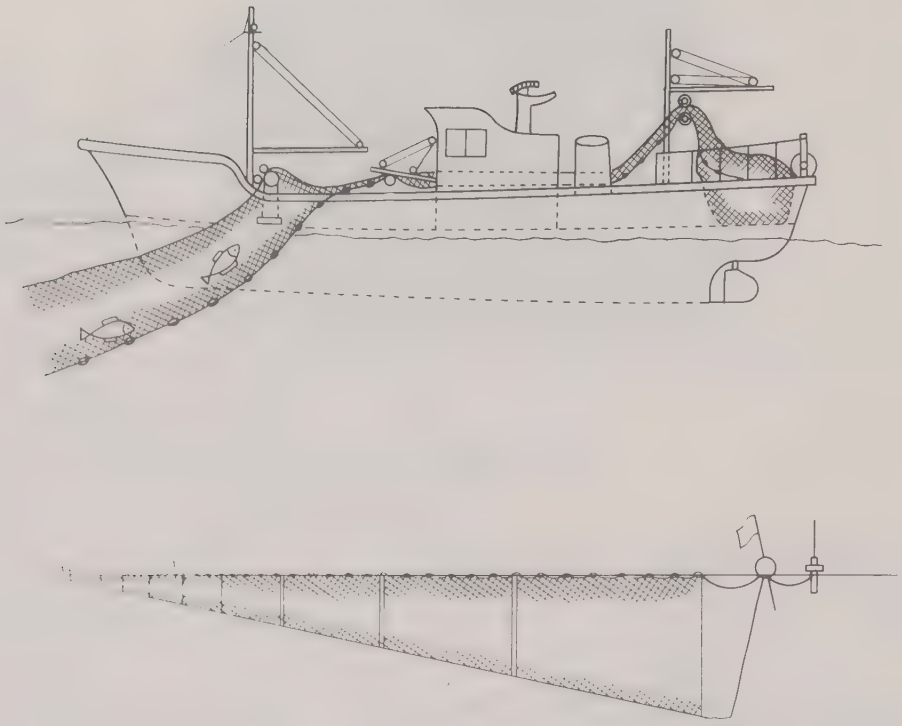


8. Purse Seine (Two Boats Operation)

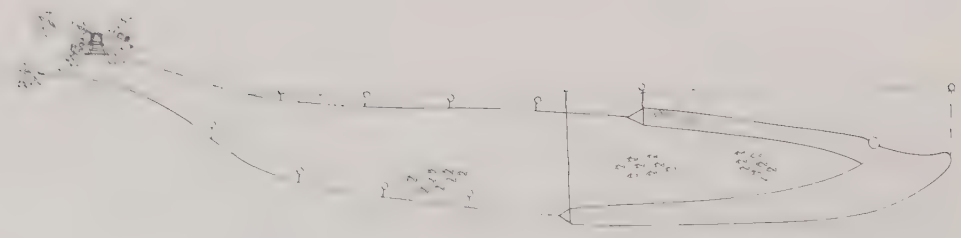
9. Saury Stick-Held-Dip Net



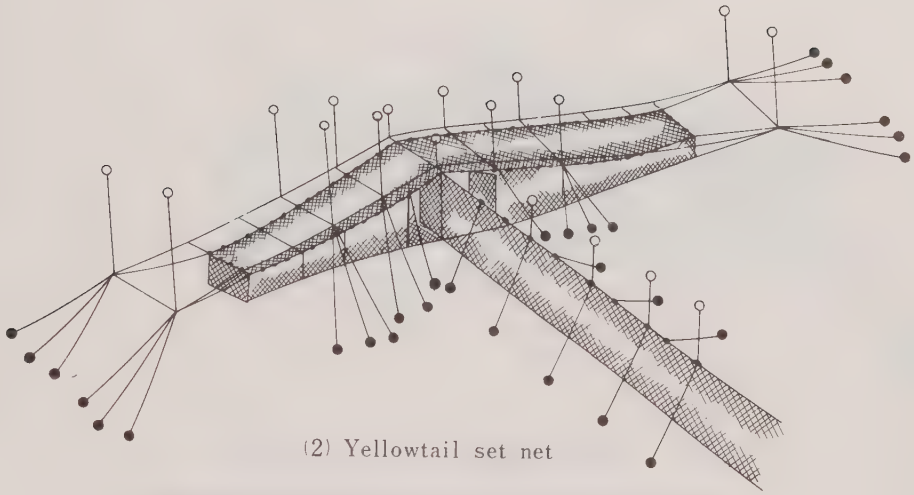
10. Salmon Drift Gill Net



11. Beach Seine

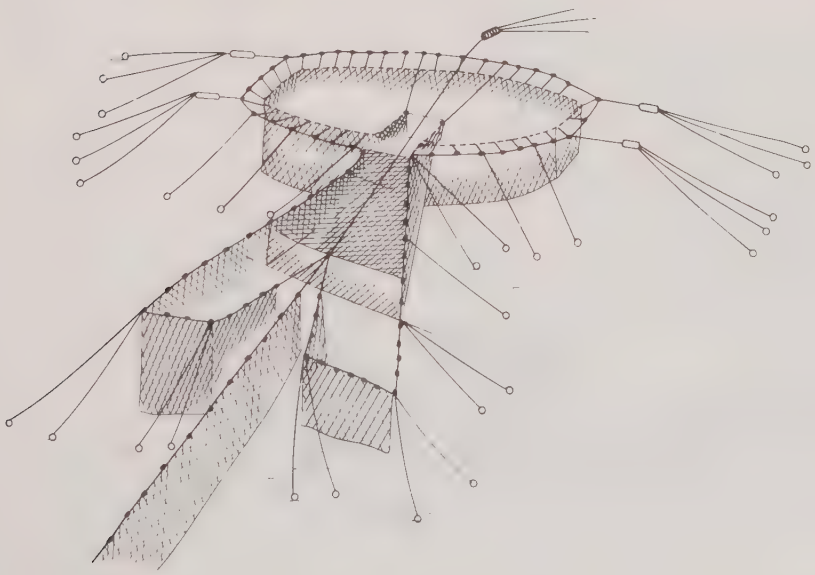


(1) Salmon set net

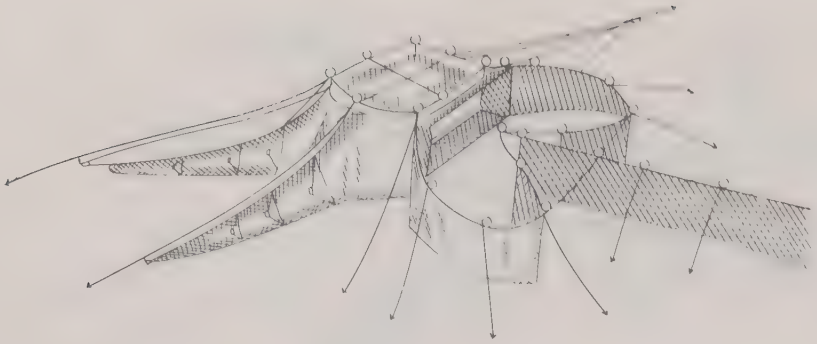


(2) Yellowtail set net

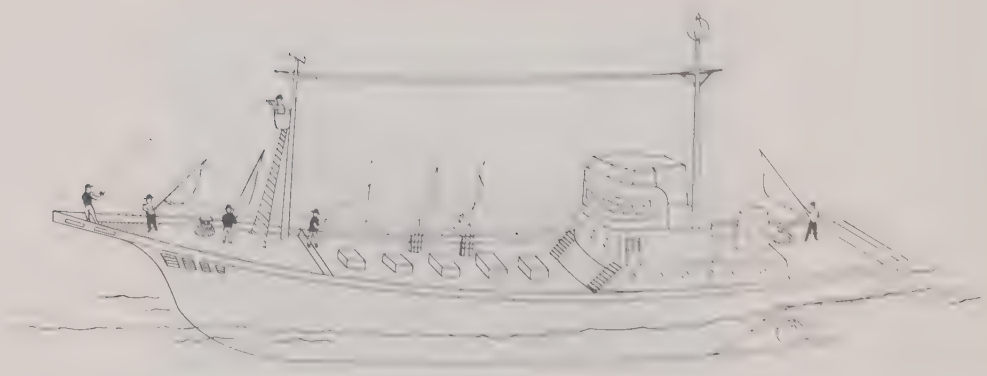
(3) Sardine set net



12. Small Set Net

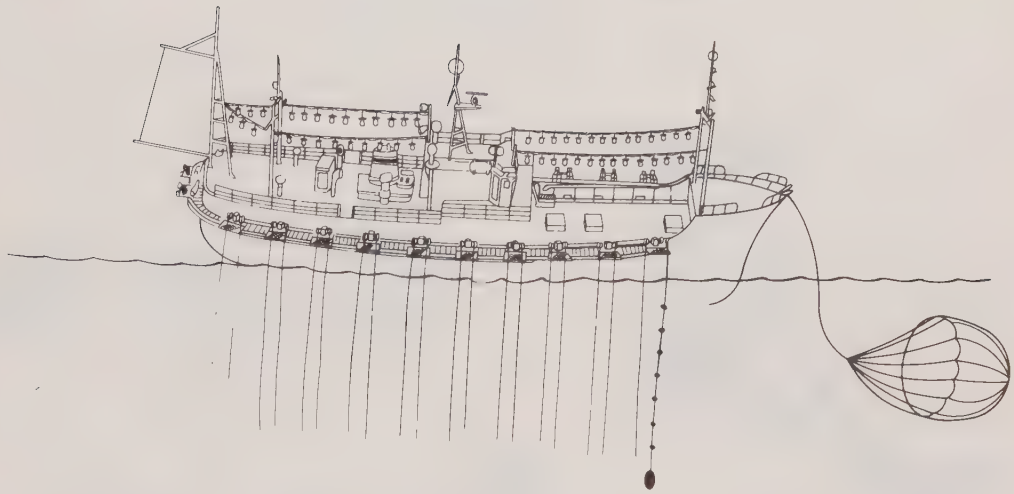


13. Skipjack Pole-and-Line



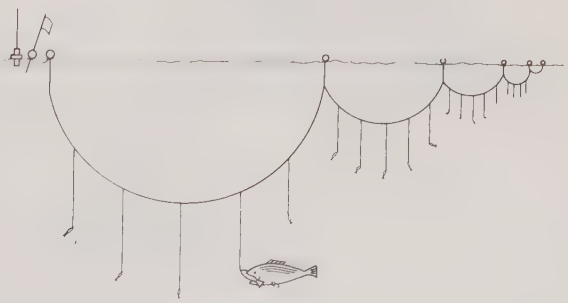
14. Mackerel Pole-and-Line

15. Squid Angling



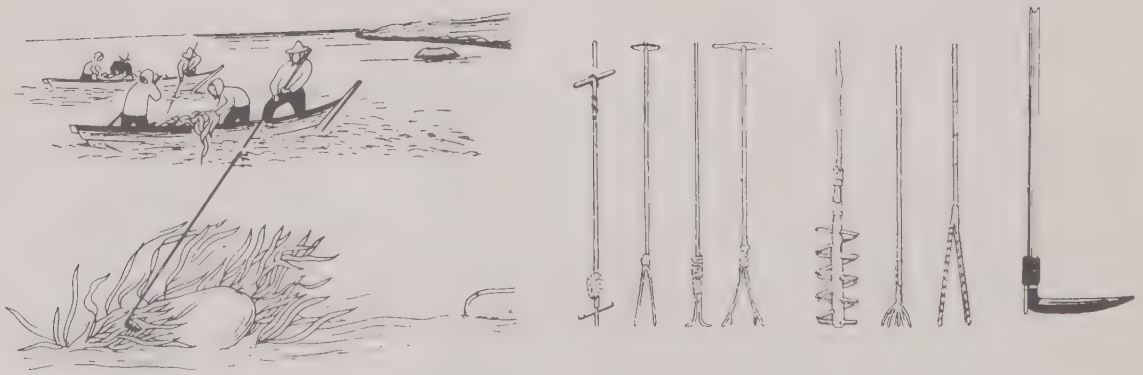
16. Other Angling (Trolling)

17. Tuna Long Line



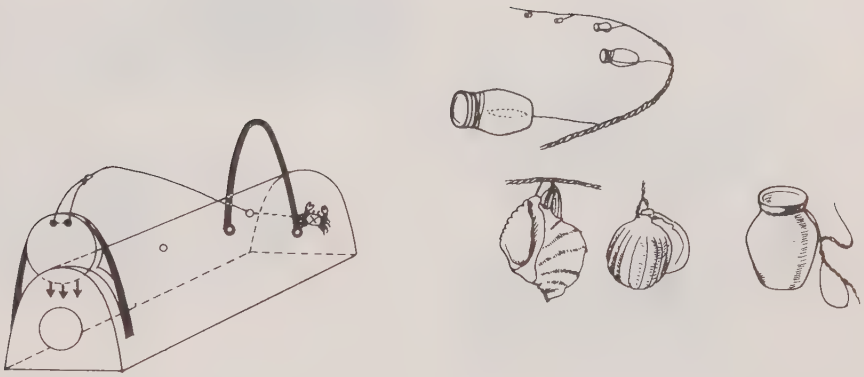
18. Shellfish Collecting

19. Seaweed Collecting

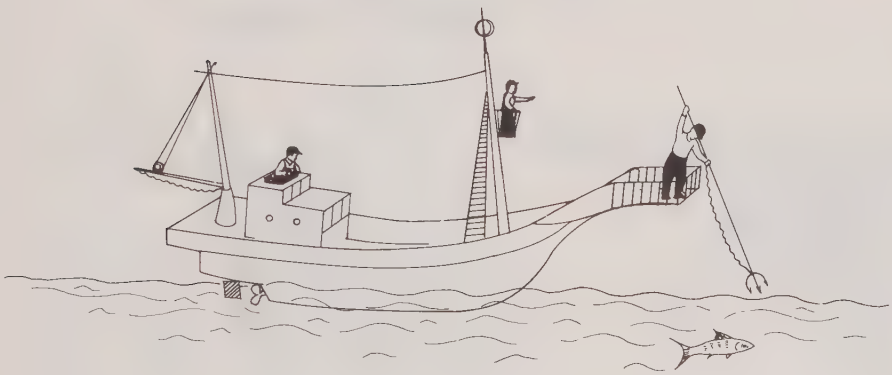


20. Other Fisheries

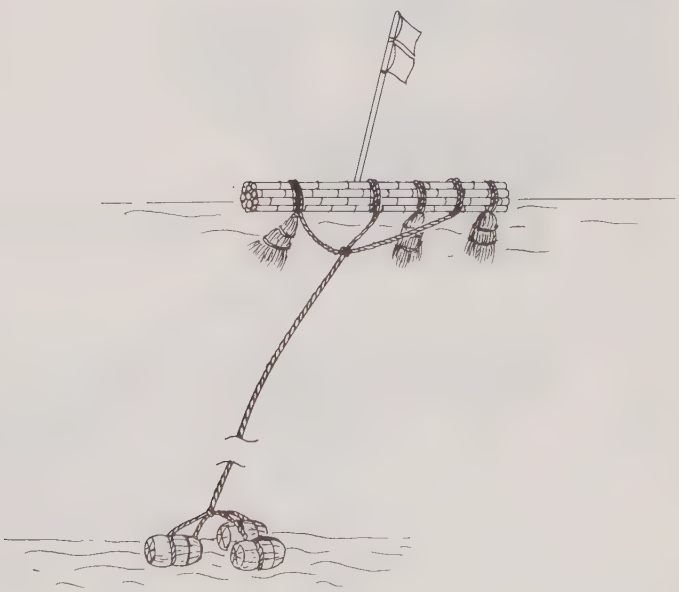
(1) Traps for octopus



(2) Dart

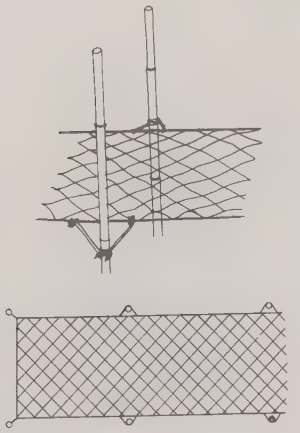


(3) "Tuke" luring fishery



21. "Nori" Laver Culture

"Nori" laver culture by stakes

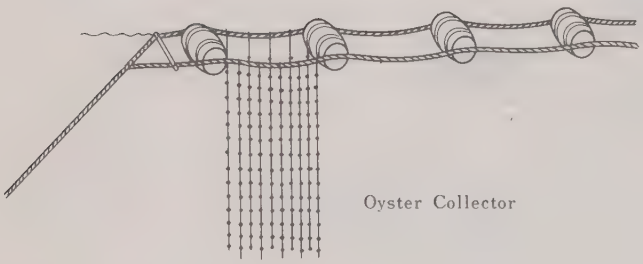


Spore collector with bamboo screen

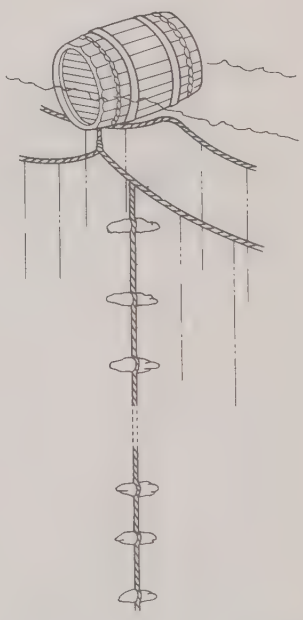
"Nori" larver culture by floating nets

22. Oyster Culture

Long line type

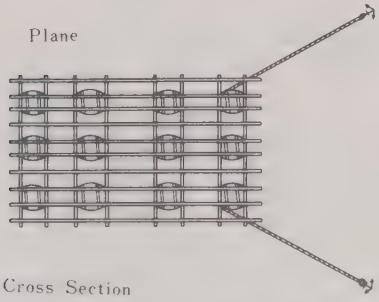


Oyster Collector

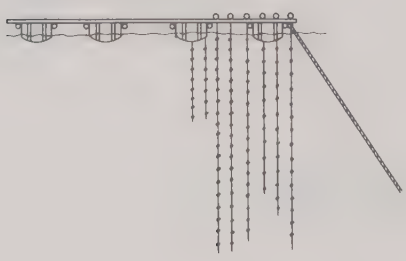


Raft hanging type

Plane

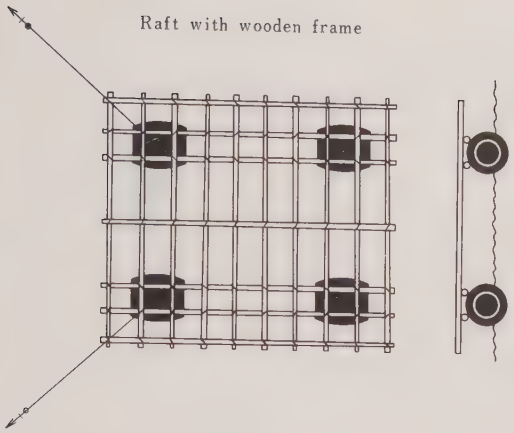


Cross Section

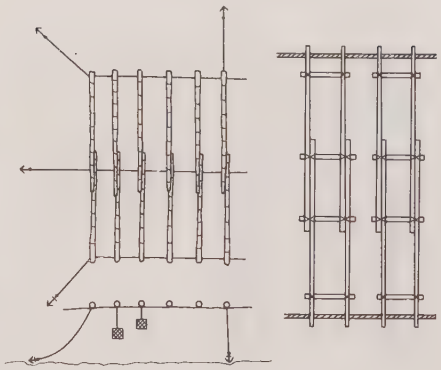


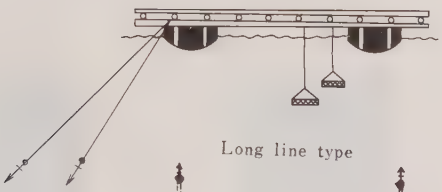
23. Pearl Culture

Raft with wooden frame

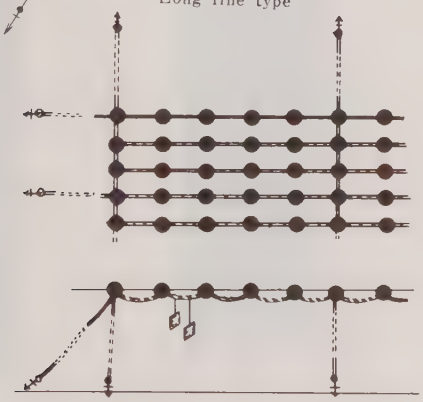


Wooden raft

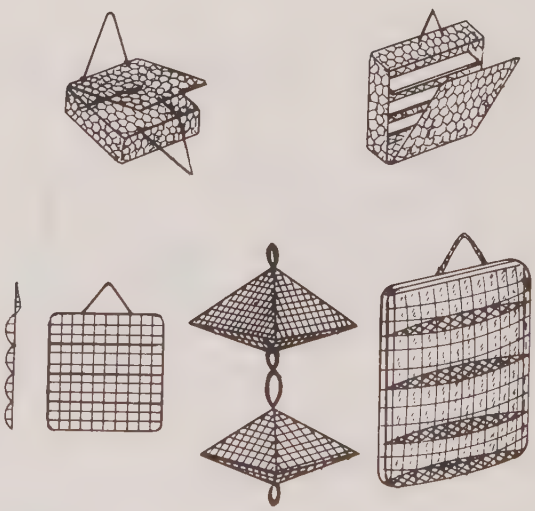




Long line type

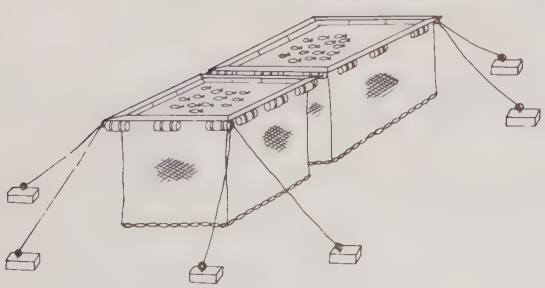


Types of baskets



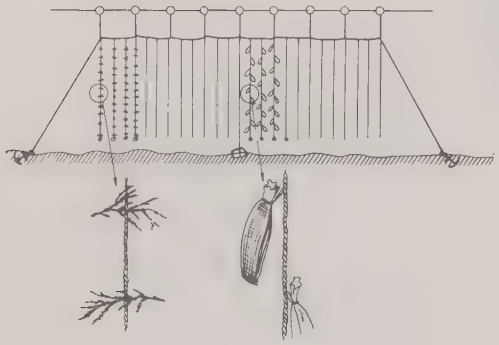
24. Yellowtail Culture

Net cage type

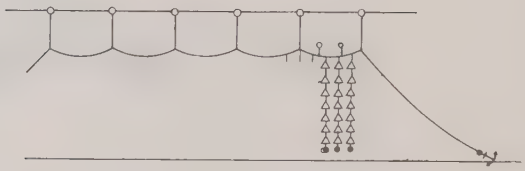


25. Scalop Culture

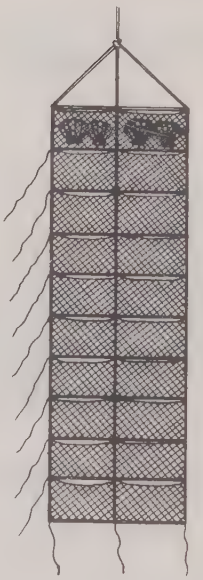
Seed collector



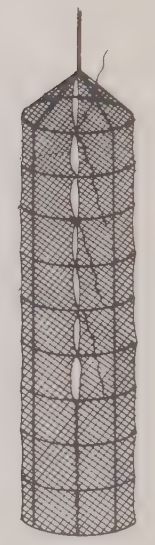
Long line type



Pocket net type

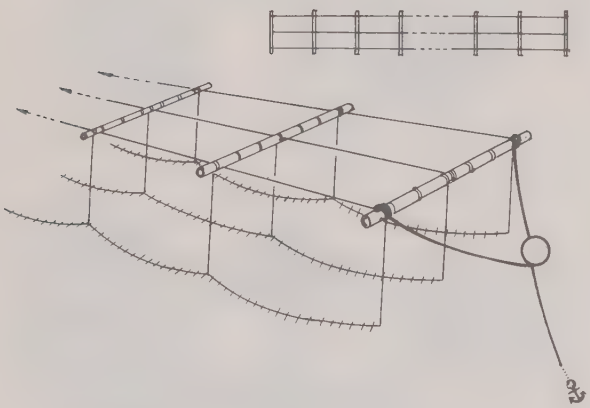


Basket type

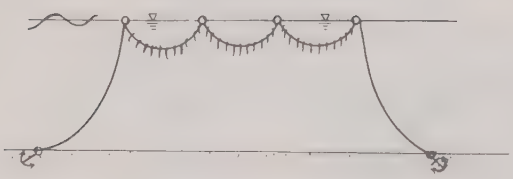


26. "Wakame" Seaweed Culture

Raft type



Long line type



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